DOCUMENT RESUME

ED 192 794 IR 008 875

AUTHOR	Ford, John J., III, Ed.; Hergert, Leslie F., Ed.
TITLE	Linking Agent's Tool Kit. Part Two: Selected Background Readings. Consortium Report Series.
INSTITUTION	Network of Innovative Schools, Inc., Andover, Mass.
SPONS AGENCY	National Inst. of Education (DHEW), Washington, D.C. Dissemination and Resources Group.
PUB DATE	79
CONTRACT	400-76-0090
NOTE	150p.; For related documents, see IR 008 874-876.
AVAILABLE FROM	The NETWORK, Inc., 290 South Main Street, Andover, MA 01810 (Parts 1, 2, and 3, $35.00/set).
EDRS PRICE	MF01 Plus Postage. PC Not Available from EDRS.
DESCRIPTORS	*Change Agents; Consortia; Educational Change; Elementary Secondary Education; Information Sources; *Linking Agents; Program Development; *Program Implementation; *Program Improvement; Public Schools; Research Utilization; Skills
IDENTIFIERS	*Research and Development Utilization Program

ABSTRACT

The second part of a 3-part guide developed as a resource for people involved in the selection and implementation of new programs in school settings, this collection of articles covers such topics as consultation, educational change, and linking processes. The following readings are included: "Behavior of Innovative Personnel," by Gary A. Griffin and Ann Lieberman; "Rules of Thumb for Change Agents," by Herbert A. Shepard; "Dissemination of Information from Centralized Bureaucracies to Local Schools: The Role of the Linking Agent," by Karen Seashore Louis; "Federal Programs Supporting Educational Change: Executive Summary," by Paul Berman and others; "The Diffusion of an Innovation Through Inter-Organizational Linkages," by Douglas A. Paul; "Introducing Change Through Model Demonstration Programs: Giving Diffusion a Boost," by Dr. Richard C. Harris; "The Organizational Dilemma of Educational Change Models: Toward a Solution," by Sam D. Sieber; and "Organizations as Social Interventions: Rethinking Assumptions About Change," by Thomas B. Greenfield. A bibliography is provided. (PM)

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ED192794

LINKING AGENT'S TOOL KIT

EDITORS

John J. Ford III

Leslie F. Hergert

Based on developmental work
by Peter Gardner and Susan Harris

A Publication of

The NETWORK

David P. Crandall, Executive Director
David Max McConkey, Director

The NETWORK, Inc.
290 South Main Street
Andover, MA 01810

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PREFACE TO THE CONSORTIUM REPORT SERIES

There are several indications that the R&D Utilization Program was a complex undertaking. There have been attempts to help schools become better problem solvers, thereby introducing change as an appropriate response to problematic conditions, and there have been attempts to help schools apply existing R&D. RDU, however, was an explicit attempt to introduce change in schools through group problem solving and the application of existing educational R&D.

RDU was also structurally complex. Rarely, for example, are programs developed that both fund an activity and provide the wherewithal to study it. Typically, contractors and grantees of research projects are told outright that funds are for research purposes and not for operational components of the phenomenon being studied, while service projects and demonstration programs allocate such a small portion of their budgets to evaluation (even broadly conceived) that little by way of findings is produced.

The Consortium Project not only accepted these challenges, it introduced some of its own. Its linking agencies, in addition to being geographically dispersed, were also diverse in their structures, missions, staffing, and orientation to schools. Secondly, there was a deliberate attempt to select schools in each state that reflected a demographic mix, so that we could experiment with linking agent strategies in urban, suburban, and rural settings. Furthermore, schools were selected for participation in the program based on the probability that solutions to their problems would impact on several aspects of school life. Quite obviously, both the project and the RDU program at large have been a rich source of experience for study and reflection.

It is appropriate, therefore, that at the end of such a program there be more than one publication to document the effects of its presence and to provide as many perspectives on the experience as possible. Before commenting on the volumes in the Series, however, I would like to acknowledge the work and the intense involvement of the project's linking agents and their supervisors.

Consortium linking agents were faced with the awesome tasks of not only helping schools introduce curricular improvements, but also of helping to define and implement a new role. In

addition they were asked to document their activities to provide the research component of the project with baseline material for developing case studies. To Donna Bellorado, Nancy Dannenberg, Joseph DePaolo, Leslie Hergert, Carol Johnson, Linda McNeely, Lana Rahn, and Beverly Vifian goes a sincere thanks for your energy and your willingness to put yourselves under several microscopes. Thanks also for representing the project in interviews, newsletters, and various professional meetings and forums.

In addition to working with these linking agents I have been fortunate to work with several experienced educators who acted as agency supervisors and subcontract managers for the project. They include James Connett, Diane Lassman, Max McConkey, Norman Oppenheim, Harry Osgood, Ralph Parish, Margaret Robinson, and Keith Wright. On several occasions they were called upon to rise above their individual and agency priorities to act in the best interest of the project, and each time they did.

The Consortium has been characterized as an anomalous collaboration among competing agencies. From my perspective, however, the collaboration was not an anomaly; it was the product of commitment, confrontation, openness, and hard work on the parts of these linking agents and supervisors.

Three of the five volumes in the Series were produced from the Research Component of the project. They evolved from the developmental work of Dennis Collins, acting in collaboration with the research directors of the other six RDU projects. It was this early developmental work that gave shape to the linker's documentation procedures and influenced the variables ultimately reported on in the three publications.

Responsibility for the conceptualization of the school-level studies, Case Studies in Program Improvement, fell to Barry Gold who developed the framework for the studies with case writers Elliott Krause of Northeastern University; Ruth Anne Olson, a private consultant; and John Nickel, Wichita State University. Case research and preparation was also done by Alfred Wilson from Kansas State University and Mary Ladd Smith, another private consultant. The cases were designed to describe the project in its first two years at the site. At the end of the third year, epilogues of each case and a cross-case themes chapter were developed by Terrence E. Deal, Holly Gunner, and Martha Stone Wiske of the Harvard Graduate School of Education.

In editing the school-level studies, Christopher J. Drew coordinated the work of eight researchers in three states and regularly mediated conflicts between the researchers and the linkers under study. I am convinced that the cases are enlightening and the cross-case analysis compelling because of his active attention to argument and style from the early drafts to the final copy.

In preparing The "Inside" Outsiders: A Study of Three Consortium Linking Agents, Dr. Beverly Loy Taylor (Center for Policy Research, New York City) inherited a partially conceived conceptual framework, a great deal of already collected data, and an incredibly tight timeline. Rather than complain, she dug in: tightened the framework, found and filled gaps in the data through interviews, observation, and extensive document analysis, and stuck to her timeline. As project director, I was pleased with her thoroughness; as a professional, I am impressed with her monograph.

Chris Drew also conducted his own research within the project. His publication, The Consortium Project: A Study of Interagency Collaboration, is a description and analysis of the project itself and is based on his observations of the project in action. His interviews of me, conducted at intervals throughout the project, I found to be thought-provoking and professionally challenging. What he was able to use as data, I was able to take as feedback, and I believe that both of us benefited from the interactions. I certainly did.

Two project central staff took responsibility for providing several types of resources to linking agents. Peter Gardner and Susan Harris planned training events, conducted meetings, circulated information, and provided ongoing contact with the linkers. Their early work, providing resources related to specific aspects of the linker's role, created the prototype Linking Agent's Tool Kit, a collection of articles and resources. John J. Ford, III and Leslie Hergert accepted the responsibility to make the Tool Kit more generic. In the process, they have considerably upgraded the original set of resources and have added important substantive comments on the linker's role.

The Reflections book is our attempt to let project staff tell their own story. In addition to the story that unfolds, the articles also demonstrate that linking agents, like any group of practitioners, can play an important role in developing and sharing understandings about their experience. The writers

represented in the book deserve credit for their willingness to think about their experiences and put forth their own analyses for public consideration and scrutiny. In editing the book I was fortunate to have the benefit of the editorial skill of Joan Wilson who worked directly with the paper writers on matters of clarity and style.

The Consortium has relied on the administrative support of a number of people over its three year history including Claire Durocher, Nina Demeritt, Nancy Lund, and Zeina Azzam, who had the massive task of coordinating production of this series. In addition, we have had extensive technical support from Paula McCarron and David Pelletier of The NETWORK's Product Development Division, and from Richard Emery, a free-lance graphic artist.

I would also like to thank Thomas S. Israel of the National Institute of Education for his support throughout the life of the program and for his responsiveness and flexibility at times when our problems had no apparent solution.

One final note on the subject of contributors to the welfare of the project: in addition to the counsel and commentary of the aforementioned people, I have also had ongoing access to David P. Crandall, Executive Director of The NETWORK, who from the start of the project has made available his professional knowledge of research utilization and his experience in project management. His support has been invaluable and his influence on me over the years has been profound. I can only hope that the reports in this Series will reflect his high standards and his tireless quest to make NETWORK publications a contribution to the future, not a rationalization of the past.

For those of us who have lived with The Consortium since 1976, the Consortium Report Series will be, no doubt, the tip of the iceberg. We just couldn't get it all into print, and in truth, we didn't try. However, I believe that we've been honest with ourselves -- that we've not invented a tip of a make-believe iceberg -- and hope that there will be a great deal in these publications that others will find of use.

Richard C. Harris, Ph.D.
Project Director

INTRODUCTION

The LINKING AGENT's TOOL KIT was developed as a resource for people involved in the selection and implementation of new programs in school settings. The job of a linking agent is a complex one that requires a wide range of knowledge and skills. Linking agents can learn from the experience and research of such fields as consultation, educational change, curriculum development and educational dissemination.

This three part kit contains numerous articles about school improvement efforts as well as introductory commentary drawn from the editors' own experience as linking agents. These articles were drawn from over one hundred articles that were selected for possible inclusion in the Tool Kit. A prototype kit including all of the initially selected articles was sent for review to some fifteen professionals working as linking agents, supervisors of linking agents and in educational publishing.

Articles cover a wide range of issues related to school improvement. There are reports of relevant research, theory and craft based articles and planning instruments and checklists.

Part I - The Linking Agent: An Overview by David P. Crandall was originally published as "Training and Supporting Linking Agents" in Linking Processes in Educational Improvement, edited by Nicholas Nash and Jack Culbertson. It describes a wide range of linking agent roles and skills, and discusses training and support mechanisms for linking agents. The client organizations served by linkers are examined as well as resources which linkers can use in working with client groups. It also describes stresses inherent in the linking role and important implementation issues faced by linkers. This first part of the Tool Kit provides an excellent overview of the realities facing those playing linking roles and reflects the author's experience as a linking agent and as a manager of a linking agency.

Part II -- Selected Background Readings includes a variety of articles on such topics as consultation, educational change and linking processes. These articles are useful resources for linking agents in helping them to understand the complexity of school improvement efforts, the organizational structure of educational institutions and techniques and approaches to consulting with school personnel.

Part III - The Stages of Linking Agent Intervention contains an examination of each phase of the linking agent's work. These stages grew out of the assumptions and experiences of the editors and comments from reviewers. The editors, linking agents themselves, based the development of these stages on some specific assumptions.

- The work of the linking agent can be described sequentially even though the order of the stages may vary depending on the school setting and working style of the linking agent. Sequential stages bring order to a complex task and provide an organizing framework for an intervention;

- The linking agent's role is a proactive one. The linking agent is not only a facilitator of change but often acts as a manager in various stages in the school improvement process; and

- The nature of the linking agent's work is collaborative. School improvement efforts work best when the linking agent works collaboratively with school staff to solve problems instead of acting as an outside expert.

The stages described in the Tool Kit are: initiating the relationship; defining the problem; selecting a program; implementing the program; evaluating the program; and disengaging from the school district.

Each stage includes commentary by the editors as well as articles that provide greater understanding of the inherent issues in the stage and serve as resources to linking agents working in that stage.

The Tool Kit serves as a useful resource for such people as consultants in state educational agencies, State Facilitators in the National Diffusion Network, curriculum and program directors in local school districts, and other educational consultants.

SELECTED BACKGROUND READINGS

The linking agent, a role in education that evolved out of a need to spread the effect of research and diffuse model programs, has grown into a key role in the process of educational change. Linking agents not only help school districts to select and implement new programs, but are also instrumental in helping many school districts to identify and to use resources and to manage change in their organizations better.

In the 1960's, the federal government began to increase its role in promoting change in education. In addition to entitlement programs to encourage schools to serve previously underserved groups, federal funds were made available for research, for curriculum and program development, and for acquiring and disseminating information. This federal involvement in education saw the establishment of seventeen laboratories and centers for educational research and development (R&D), the Educational Resources Information Centers (ERIC), and a plethora of innovative programs.

These funding efforts were expected to produce new knowledge, new curricula, new programs, and new ways of making information available that would lead to improved schooling. It was expected that the successful practices and innovations in use in one school district would be adopted by other districts. Model programs, by virtue of being developed in schools by school people, were expected to have a "lighthouse" effect, to show the way to improvement to other school districts. The results of these funding efforts were quite different. Although many excellent programs and practices did develop and did improve education in local districts, these innovations did not spread, even to adjoining districts. Programs, with similar innovative approaches, were sprouting all over without knowledge of each other and were not serving as models for other districts.

To increase the spread of model programs and eliminate duplication, funding agencies began requiring programs to include a dissemination plan in their grant proposals. Newly funded programs designed techniques to create awareness and interest in their program activities. These included program brochures, newsletters, slide tapes, and presentations at conferences.

Unfortunately, the success of these efforts was dependent on the commitment and skills of the program staff. Programs were replicated, in many cases, not because they effectively met the needs of school districts, but because the program staff were successful in "selling" their program. School districts interested in replicating model programs often lacked the skilled local personnel to implement them successfully.

The need for a mechanism to help schools find and use model programs, research, and other information was obvious. Several experiments were funded to provide schools with educational extension agents, a variation of the agricultural extension agent, whose job it was to link local educators to research information and model programs. The Educational Extension Agent Experiment, the National Diffusion Network, and the Research and Development Utilization Program are three examples of such experiments.

Intermediaries linking schools with research and programs can function in different ways. Initially linkage systems focused primarily on providing schools with information about innovative programs and resources. Information and program dissemination specialists sent information packages to school districts and sponsored conferences where innovative programs and resources were presented.

Although these services provided valuable assistance to school districts, districts also needed help in selecting and implementing programs that addressed educational problems in the schools. To meet this need, many state and intermediate educational agencies expanded their dissemination programs to become more directly involved in helping schools to implement new programs and practices. Other agencies interested in school improvement also recognized this need and provided similar services. People who help schools solve problems through identifying, selecting, and using new resources or programs became known as linking agents.

The goal of the linking agent's activities is school improvement. Improvement connotes change and any change effort must be carefully considered, focused, planned and carried out. The linking agent acts as a consultant who works with schools to accomplish a school improvement effort and provides them with outside resources to facilititate that effort. The following are some key characteristics that make the linking agent role ideally suited to help schools with a program improvement effort.

- <u>The linking agent is a generalist</u>

  To successfully help schools, linking agents must possess a blend of critical skills -- interpersonal, group process, consulting, organization development, and resource utilization. They need interpersonal skills to develop effective working relationships and mutual trust with teachers and administrators, and parents. Linking agents employ group processes to assure participation by all group members and to keep working groups on task. Consulting skills help linking agents to effectively identify and address district problems, serving as helpers

in the district. Effectively used, organizational development skills help linking agents to understand how school districts function in order to anticipate and interpret what problems might occur during the improvement process. Finally, the linking agent must be able to identify and use resources that will enhance program selection and implementation.

Often linking agents come to the job with content expertise in a specific field. They may have been functioning as expert consultants in a field such as reading. New linking agents soon find that they need a wide range of skills and that they have to be flexible and versatile in using those skills. While content expertise can be an important resource to draw upon at times, the linking agent functioning as generalist is often less threatening and more facilitative to school groups working on program improvement.

- The linking agent helps schools select or adopt but not develop new programs.

  Linking agents are distinguished most from other types of consultants by their emphasis on the use of existing resources and programs. Linking agents help schools to examine existing model programs and select and implement a program that meets the needs of the school. They typically do not, however, help schools to develop new programs.

- The linking agent is an independent agent.

  Crucial to the role of the linking agent is freedom from affiliation with both adopting schools and program developers. Linking agents, by not being directly involved or responsible for existing problems or programs, provide an objective perspective that allows them to weigh potential solutions without any personal investment in the outcome. Being an "outsider" not only allows the linking agent to view the situation in each school objectively, but it also provides an opportunity to look at change in one school as it relates to change in other schools.

In helping schools to choose and use new programs, linking agents work with schools through a series of sequential stages. These include:

- Problem Clarification -- linking agents help schools to assess what problems exist with their current programs and what is causing these problems.

- Program Identification -- linking agents help schools identify a wide range of programs that could potentially solve their current problems.

- Program Selection -- linking agents help schools to carefully analyze each identified program and select the program that best meets the districts' needs.

- Program Implementation -- linking agents help schools to develop a plan for training staff in the program approaches, for using the program, and for insuring successful integration of the program into the ongoing life of the district.

- Program Evaluation -- linking agents help schools to monitor the implementation of the program and evaluate whether it is meeting local needs.

Ideally, one linking agent works with a school district throughout the entire improvement effort, thus providing continuity of service and in-depth understanding of local needs. Sometimes, however, several people share the role because responsibilities are divided in the home organization. For example, one person may be responsible for helping schools find and select a program while another person provides implementation or evaluation assistance. In these cases it is important for assistance efforts to be coordinated and for all involved to work together.

The linking agent's role in school improvement is multi-faceted and complex. This volume of the Linking Agent's Tool Kit includes articles that characterize the work of a linking agent -- models of educational change, theories and approaches of consultation, and approaches to organizational diagnosis and development. The selections which follow are intended to present several perspectives judged by our reviewers to be especially relevant to the particular knowledge needed by practicing or potential linking agents.

Behavior of Innovative Personnel

Gary A. Griffin and Ann Lieberman

THE INNOVATOR IN SCHOOLS

It is important to point out that we have not intended to illustrate the impossibility of innovation in schools but to suggest what must be known in order to accomplish change. It is believed that in order to act effectively in a complex setting the complexity must be understood. A principal difficulty in moving from this complexity toward acting upon and within it is that research has pointed out the presence of conditions antithetic to innovation but has not helped us to engage in the act of innovating. What follows, then, is a series of propositional statements regarding desired behavior of innovative school personnel -- educated guesses based upon the foregoing and other data sources -- which are thought to have potentially powerful impact upon the business of schooling and which are considered necessary aspart of the repertoire of the innovator. Importantly, these behaviors are ones which can be learned, thus moving beyond personal traits.

Diagnosis

The educational innovator needs the skills and knowledge attendant on diagnosis, not only of specific curricular or instructional problems but also of the system into which such innovations are to be introduced. Diagnosis is basically a set of problem-related questions whose answers provide insight into the most reasonable solutions to be suggested. Questions such as the following should be considered: What beliefs and knowledge are held by various persons to be affected by innovation: teachers, students, boards of education, parents, etc.? Is there a need for more information about the problem or the proposed innovation? What is the level

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of awareness of the problem itself? Have the problems been clarified and agreed upon? What are the identifiable solutions most appropriate to the setting? What should be the order of priority for action, based upon the analysis of perceptions regarding the problem? Who is likely to be most affected by the proposed changes? What must be done with these people to get their support? The answers of such diagnostic questions provide bases for subsequent action which, given the system described earlier, tend to alleviate the potential stress in the system.

Work with Groups

Much attention has been given to the necessity of recognizing that school systems are groups of people organized, however loosely, to engage in certain activities and/or accomplish certain goals. Groups function with lines of communication, according to norms of acceptable behavior, make decisions, have varying degrees of cohesiveness, and illustrate high or low morale. In order for the innovator to function effectively in this essentially social system he must understand these phenomena, diagnose them with reasonable precision and accuracy as noted above, and unleash his energy toward the powerful change impetus which too often lies dormant at some unrecognized level of the group consciousness. The leadership studies noted earlier call attention to the link between leader behavior and group behavior. Prior to such an effect, however, one must develop group cohesiveness, take stock of who is making what decisions, determine the reason for the group's existence, and ask penetrating questions regarding individual group members' perceptions of what publicly stated group goals and procedures mean to them. As has been noted earlier, schools exist physically and ideologically in isolation from one another and are seldom organized structurally for communicaton effectivenss. This conditon points to the necessity for the innovator to carefully select the topics or procedures most likely to be compelling enough to overcome it.

Self-Awareness

The innovator must be conscious of his strengths, his weaknesses, his power in given situations, and his image in the immediate and removed community. This self-awareness extends to others when he begins to identify those most likely to play complementary roles. Again, questions help us to come to grips with these issues: What is my effect upon others? Where does that effect assume positive values, negative values? Who can help me and whom can I help? What can I do by myself? What do others expect of me? Can these expectations be altered? When am I most effective, in what circumstances? These questions are meant to convey the constant self-evaluation which must accompany the externally perceived actions of the innovator if he is to interact positively with others in the setting to produce change.

Knowledge of the Change Process

It is important for the innovator to be aware of the phenomenon which might be labeled the "ripple effect." It has been demonstrated that most changes, however minimal, produce effects upon the rest of the system despite the weak linkages noted earlier. This can work positively or negatively for innovation. If one is unaware of the phenomenon, it is likely that unforeseen consequences outside the particular settting of the change may reflect upon the proposed change and effectively damage it. It is possible, however, to foresee such consequences to a degree and utilize them to advantage. This latter is particularly true if one wants others to come to recognize a problem which is multidimensional. Acting upon one of the dimensions, probably one which is not highly valued by the group affected, may produce a recognition that the constants of the small problem are also present to a greater and stronger extent in the aggregate to which the smaller problem belongs. Another necessary understanding related to the change process is that organizational or structural changes are successful to the degree that they are accompanied by knowledge o the behaviors that accompany them. An example might be the introduction of team teaching which is structural in intent but which gives rise to the basic issues of schooling in a microcosm. Simply mandating that certain teachers shall work together does not take care of the negotiations which will be a consequence of the new mode of grouping. The negotiations will focus on curricular issues, instructional issues, teacher roles, the need for new modes of communication, the resolution of value differences, the necessity of self-revelation, the impact upon children and community and other publics, and related issues. The point here, then, is that the innovator must move beyond recognition of self and motive toward effect upon others and take into account the knowledge available which makes that extension of vision fruitful for innovation. This knowledge is available from a variety of sources and can provide useful insight into the acts of changing schools.

Shared Decison Making

The successful innovator recognizes the complexity of schools and school systems. He understands the relative isolation of teachers and others within the setting. He accepts the principle that decisions which affect others are most powerful when they are made with those others. The implication here is clear: Shared decision making is more likely to result in effective and lasting change than are decisions which are imposed on others. It is vital to recognize that sharing decisions making does not mean a relinquishment of the leadership role; it is an extension of that role and a manifestation of an internalization of the knowledge about social systems and how they can function more effectively.

Gradualism

Etzioni has drawn the distinction between gradualism and grandeur when introducing innovations. Gradualism allows for new behaviors to be practices, refined, and made a lasting part of one's repertiore. Grandeur forces members of the school into marked, dramatic, and unfamiliar behaviors quickly with little of the necessary buildup. When gradualism undergirds a change strategy, as here suggested it should, new rewards must be developed or old ones redirected so that the newly adopted behaviors are seen as valued, prestigious, and important. Too often, however, even the "gradualist" neglects the reward system and its effect, positive or negative, upon teachers and others. Such neglect is the cause of many innovative practices being neglected to the point where they wither and die.

Construction of New Support Systems

The innovator must be able to move beyond his conception of what the change will be to an understanding of what the change will require not only for initiation but for susenance. A redirection of present rewards has been mentioned. This conception of redirection is important when one considers what else in the system is necessary to carry out the innovation. In time of economic crunch it is not feasible to depend largely upon outside resources -- it is necessary to reconceptualize allocation of goods and services already available. Caution is mandatory when such redirection activity occurs in that it has already been pointed out that one change can effect not only its immediate purview but other points in the school system. Careful analysis of present support systems and how they function will point toward redistribution strategies least likely to upset the innovator's particular valued apple cart. This is particularly true when one adds to a system rather than replacing something in the system with something else.

Action upon Subsystems

The many subsystems, formal and informal, operating concurrently in school settings may or may not interact. They may be in conflict, particularly the informal ones which arise out of a need for people to be with others who share their values and belief systems. They may be inside or outside the school itself (parent groups, for example). For successful innovation to take place it is necessary that these subsystems be identified and then, whenever possible, linked together to provide support for the innovation. The linkage can be dependent for initial action upon generalities such as "all children should be educated" but will need more concrete and specfic reasons to act together when confronted with changes in their loosely defined group structures. Too often school people isolate groups -- parents,

students, teacher, grade levels of teachers, administrators, paraprofessionals -- when all are needed to make a change work. What is suggested here is moving significantly beyond the information -- giving linkages most often found in schools toward a conception of totality of attach with unified focus.

Knowledge of Own Social System

Closely aligned to knowledge of self is knowledge of one's own social interactions and their power or lack of power. It is vital to know who in one's professional environment is not influential upon one's own behavior. Also, it is important to attempt to ferret out why this is true. This conception can then be extended to include an examination of the opinion leaders in the school setting and an analysis of the reasons certain people are identified and others not. An important distinction must be made regarding the difference between informed leaders -- those who know what it is necessary to know -- and opinion leaders who exert influence upon the expressed feelings and thoughts of their colleagues. Identification of both groups of individuals is extremely valuable for the innovator.

Cosmopolitanism

Frequent mention of cosmopolitanism pervades the change literature. For our purposes the term means an extension of knowledge and beliefs beyond what one might find in the immediate setting; vision or horizons far afield might be used synonymously. Extending the concept from the way the innovator sees himself and his world to ways in which the innovator can help others to have the same characteristics is one way of introducing a greater degree of acceptability of change into the school setting. How can people be helped to see more than their intimate problems, materials, ideas, colleagues? One strategy is to place people, with their consent, with others who have the potential to alter vision while, at the same time, being supportive. Provide opportunities for "strangers" -- people, places, ideas, events -- to get into the school lives of educators and those concerned with education. The resultant cosmopolitanism reduces the possibility that change, as change, is as powerful a threat as when the unfamiliar is exotic, strange, and feared.

Development of a Core Support Group

Outside of individual teachers' efforts to make changes in classrooms in terms of instructional practices and procedures, efforts to change school systems usually involve many persons. The necessity to identify and then to maintain and add to a group of people who will act with the innovator is considered essential. Too often the innovation founders because it is identified with only one person, or at best a few others, and the

human energy needed to induce and sustain the change just is not present. Changing a system is extraordinarily difficult and demanding of personal resources. One can alleviate this resource drain by gathering around him a group of people who will entertain the change, engage in it, lead others to join in, and be supportive during early trial phases. An ideal situation, of course, would be for the support group to be composed of persons representative of the subsystems noted earlier, the opinion leaders, the informed leaders, and so forth. The stronger the support group and the greater its willingness to experiment and keep going, the more likely the innovation will be to take hold and become part of the larger system.

The Image of the Innovator and His Manifest Behavior Toward Others

In keeping with the research on leadership reported earlier, it is considered vital that the innovator be seen as one who is supportive and who relates positively to others as valued human beings. It will be recalled that such terms as empathy, expressiveness, and consideration emerge from some of the research studies. It is not enough to relate to others only in terms of idea exchange or, less desirable, as "teller" to others. One should exhibit behavior which indicates recognition of the conflict, problems, tensions, stress, fear, and tentativeness which accompany innovation. Such human reactions are natural and should be seen as natural. It is sometimes important to stop the idea flow long enough to allow the empathy to flood the environment so that the ideas can take root in receptive minds.

CONCLUSION

This paper has presented selected research findings and seculations regarding leadership, innovation, and change agents; synthesized principles of organizations as they are related to schools; and introduced broad categories of behavior which are though to be potentially powerful for innovators in their attempts to alter the conditons of schooling. Certainly, the scope of the paper is not as broad nor as deep as the subject warrants. It is important for hypotheses regarding innovative behavior to be further developed and tested for their effect upon schools and school people. It is hoped that increased attention to this presumed need will yield results which will be of benefit to teachers, administrators, parents, and, most importantly, to students.

Rules of Thumb for Change Agents

Herbert A. Shepard

The following aphorisms are not so much bits of advice as things to think about when you are being a change agent, a consultant, an organization or community development specialist -- or when you are just being yourself trying to bring about something that involves other people.

RULE 1: STAY ALIVE

This rule counsels against self-sacrifice on behalf of a cause that you do not wish to be your last.

Two exceptionally talented doctoral students came to the realization that the routines they were being put through to get their credentials were absurd, and decided not to complete the degree because they would be untrue to themselves to conform to and support an absurd system. That sort of reasoning is almost always self-destructive. Behind the noble gesture there are usually some childhood-based conflicts that are neither understood nor admitted. Besides their gesture was unlikely to have any impact whatever on the system they were taking a stand against.

This is not to say that one should never take a stand, or a survival risk. But such risks should be taken as part of a purposeful strategy of change, and appropriately timed and targeted. When they are taken under such circumstances, one is very much alive.

But Rule I is much more than a survival rule. The rule means that you should let your whole being be involved in the undertaking. Since most of us have never even been in touch with our whole being, it means a lot of putting together of parts that have been closed or were never opened.

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Staying alive means loving yourself. Self-disparagement leads to the suppression of potentials, to a win-lose formulation of the world and to wasting life in defensive maneuvering.

Staying alive means staying in touch with your purpose. It means using your skills, your emotions, your labels and positions, rather than being used by them It means not being trapped in other people's games. It means turning yourself on and off, rather than being dependent on the situation. It means choosing with a view to the consequences as well as the impulse. It means going with the flow even while swimming against it. It means living in several worlds without being swallowed up in any. It means seeing dilemmas as opportunities for creativity. It means greeting absurdity with laughter while trying to unscramble it. It means capturing the moment in the light of the future. It means seeing the environment through the eyes of your purpose.

RULE II: START WHERE THE SYSTEM IS

This is such ancient wisdom that one might expect its meaning had been fully explored and apprehended. Yet in practice the rule -- and the system -- are often violated.

The rule implies that one should begin by diagnosing the system. But systems do not necessarily like being diagnosed. Even the term "diagnosis" calls himself a "change agent". It is easy for the practitioner to forget the hostility of jargon that prevents laymen from understanding the professional mysteries.

Starting where the client is can be called the Empathy Rule. To communicate effectively, to be able to build sound strategy, the change agent needs to understand how the client sees himself and his situation, and needs to understand the culture of the system. Establishing the required rapport does not mean that the change agent who wants to work in a traditional industrial setting should refrain from growing a beard. It does mean that, if he has a beard, the beard determines where the client is when they first meet, and the client's curiosity needs to be dealt with. Similarly, the rule does not mean that a female change agent in a male organization should try to act like one of the boys, or that a young person should try to act like an old person. One thing it does mean is that sometimes where the client is, is wondering where the change agent is.

Even unwitting or accidental violations of the empathy rule can destroy the situation. I lost a client through two violations in one morning. The client group spent a consulting day at my home. They arrived early in the morning, before I had my

empathy on. The senior member, seeing a picture of my son in the living-room, said: "What do you do about boys with long hair?" I replied thoughtlessly, "I think he's handsome that way." The small chasm thus created between my client and me was widened and deepened later that morning when one of the family tortoises walked through the butter dish.

Sometimes starting where the client is, which sounds both ethically and technically virtuous, can lead to some ethically puzzling situations. Robert Frost* describes a situation in which a consultant was so emphatic with a king who was unfit to rule that the king discovered his own unfitness and had himself shot, whereupon the consultant became king.

Empathy permits the development of a mutual attachment between client and consultant. The resulting relationship may be one in which their creativities are joined, a mutual growth relationship. But it may also become one in which the client becomes dependent on the consultant, so that he can be manipulated by the consultant. The ethical issues are not associated with starting where the system is, but with where one takes it.

Are the use of complacency shock, pulling out the rug of familiar structure, and two-by-four confrontation of differences violations of this rule? Of course, but they do help to determine and to reveal where the client is, sometimes at the cost of the relationship. They are often productive if the client is committed to the scene and the consultant.

RULE III: NEVER WORK UPHILL

This is a comprehensive rule, and a number of the other rules are corollaries or examples of it. It is an appeal for an organic rather than a mechanistic approach to change, for building strength and building on strength. It has a number of implications that affect the choices that change agent makes about how to use himself, and it says something about life itself. The following are some corollaries.

RULE III, Corollary 1: <u>Don't build hills as you go</u>.

This corollary cautions against working in a way that builds resistance to movement in the direction you have chosen as desirable. For example, a program which has a favorable effect on one portion of a population may have the opposite effect on other portions of the population. Perhaps the commonest error of this kind has been made in the employment of T-group training in organizations -- turning on the participants and turning off the non-participants in one easy lesson.

RULE III, Corollary 2: Work in the most promising arena.

The physician-patient relationship is often regarded as analogous to the consultant-client relationship. The results for system change can be unfortunate. For example, the organization development consultant is likely to be greeted with delight by executives who see in his specialty the solution to a hopeless situation in an outlying plant. Some organization development consultants have disappeared for years because of the irresistibility of such challenges. Others have whiled away their time trying to counteract the Peter principle by showing up incompetent managers.

RULE III, Corollary 3: Don't use one when two could do it.

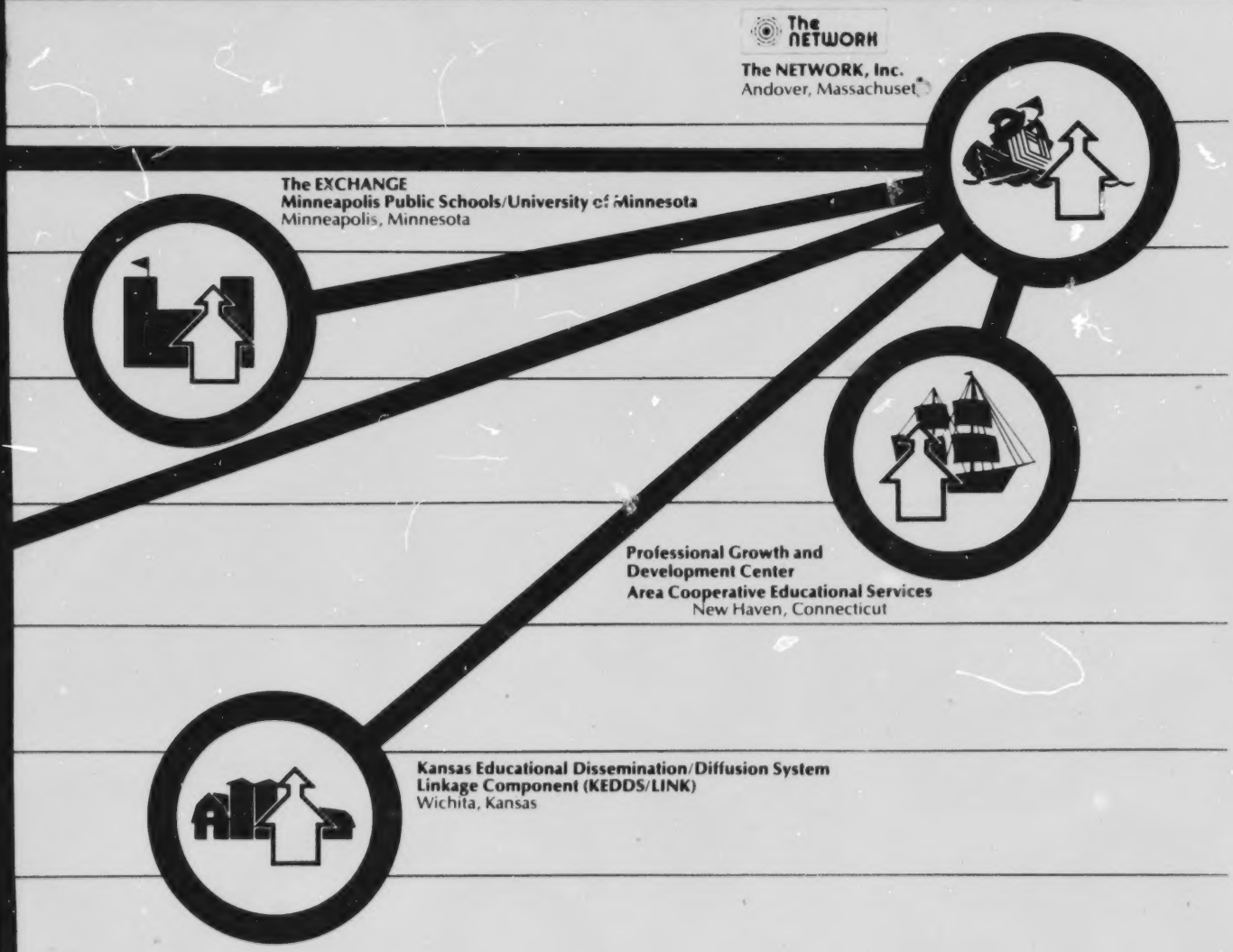
To be less cryptic; don't do anthing alone that could be accomplished more easily or more certainly by a team. Don Quixote is not the only change agent whose effectivenss was handicapped by ignoring this rule. The change agent's task is a heroic one, and the need to be a hero does not facilitate team--building. As a result, many change agents become "spread too thin," through faiing to develop partners who can carry on the work and use the change agent's skills efficiently.

RULE III, Corollary 4: Don't over-organize.

The background of democratic ideology and the theories of participative management that many change agents possess can sometimes interfere with common sense. A year or two ago I offered a course, to be taught by graduate students. The course was oversubscribed. It seemed that a rational process for deciding whom to admit would be desirable, and that participation of the graduate students in the decision would also be desirable. So I demanded a good deal of data about themselves from the candidates for admission, and xeroxed their responses. Then the graduate students and I held a series of meetings. The graduate students were then informed by letter of the decision. I suppose I spent ten days in this absurd process, and each of the graduate students wasted a day or two. In the end we concluded that a completely arbitrary decision rule -- like first come, first served -- would have given as good results with much less anguish for the candidates, the students and myself.

RULE III, Corollary 5: Don't argue if you can't win.

Sometimes there is a hill in the path of change which must be confronted. Thus one may begin working with people in the middle of a power structure because they are eager to learn and to move -- working with them is not working uphill--but the



CONSORTIUM REPORT SERIES:

LINKING AGENT'S TOOL KIT

Part Two
Selected Background Readings

THE RESEARCH & DEVELOPMENT UTILIZATION PROGRAM

Overview

In 1976 the National Institute of Education sponsored a multi-year program designed to help schools take better advantage of educational research and development. The NETWORK, Inc., working with subcontracts to

Far West Laboratory for Educational Research and Development
San Francisco, California

KEDDS/LINK System
Wichita, Kansas

Yakima Public Schools
Yakima, Washington

Area Cooperative Educational Services Center
New Haven, Connecticut

The Minneapolis Public Schools/ University of Minnesota Teacher Center
Minneapolis, Minnesota

was one of seven RDU contractors. Although the seven RDU projects were chosen to represent a variety of strategies for working with schools, each project's overall approach shared the following features:

- Direct assistance to staff and community members
- Linking agents to coordinate services and work with select staff
- Team problem solving among local teachers, administrators, and others
- Access to services and resources from several sources
- Individual project documentation and research

The Consortium Project

Linking agents, housed in each of the subcontracting agencies and at The NETWORK, worked directly with the faculty and administration in thirty schools for a three year period. The linking agents followed a sequential problem solving model which resulted in groups at each school defining problems, developing criteria for reviewing potential solutions, selecting and implementing new programs, and evaluating outcomes.

Staff members in the Project's Linker Support Component provided each linker with resources, training, and consultation at regular intervals throughout the life of the project. At the same time members of the Research Component, using case studies, documented and analyzed activities at all levels of the project -- school, linking agency, interagency. The products of The Consortium were developed by one of these two components -- Linker Support or Research -- and comprise The Consortium Report Series.

(Continued on inside back cover)

The work upon which this publication is based was performed pursuant to Contract No. 400-76-0090 of the National Institute of Education. It does not, however, necessarily reflect the views of that agency.

undertaking will become a hill-building exercise unless there is a strategy for gaining the support of the top of the structure. If the strategy encounters opposition rather than interest, the change agent may consider a confrontation mode for achieving his purpose. Unless he has developed a consitutency of support which matches or exceeds the power that the opposition can muster, he should decide against confrontation.

RULE III, Corollary 6: Play God a little.

The change agent's life is his own, and it is as short as any other man's. It is important to evaluate a given context, opportunity, or need; is it appropriate for your skills and learning needs and fulfillment? Is there as much potential for change in it as in competing opportunities? For example, the public educational system is a mess. That doesn't mean we know how to save it, or even whether it should survive. It certainly doesn't mean that the change agent is morally obligated to try to improve it, destroy it, or develop a substitute for it. If there is a moral obligation, it is to the development of his own talent potential.

RULE IV: IN?VATION REQUIRES A GOOD IDEA,
IN?TIATIVE AND A FEW FRIENDS

As implied above, little can be accomplished alone, and there is evidence from experiments on the effects of a group pressure on individual perception to suggest that the change agent needs a partner, if only to maintain perspective and purpose.

The quality of the partner is just as important as the quality of the idea. Like the change agent, partners must be relatively autonomous people. As an example, the engineering staff of a chemical company designed a new process plant using edge-of-the-art technology. The design departed too radically from the experience of top management, and they were about to reject it. The engineering chief suggested that the design be reviewed by a distinguished chemical engineering professor. The principal designers were in fact former students of the professor. For this reason he accepted the assignment, charged the company a fee for reviewing the design (which he did not trouble to examine), and told the management the design was brilliantly conceived and executed. By this means the engineers not only implemented their innovations, but also grew in the esteem of their management.

A change agent experienced in the Washington environment reports that he knows of only one case of successful interdepartmental collaboration in mutually designing, funding and carrying through

a joint project. It was accomplished through the informal collaboration of four bright young men, one from each of four agencies. They were friends, and met weekly for lunch. They conceived the project, and planned a strategy for implementing it. Each person undertook to interest and influence the relevant key people in his own agency, and the four served one another as consultants and helpers in developing ways of bringing this influence to bear in each agency.

An alternative statement of Rule IV is as follows: Find the people who are ready and able to work, introduce them to another, and work with them. Perhaps because many change agents have been trained in the helping professions, perhaps because we have all been trained to think bureaucratically, or mechanistically, concepts like organizational position, representativeness or need are likely to guide the change agent's selection of those he works with. A more powerful beginning can be made by finding those persons in the system whose values are congruent with those of the change agent, who possess vitality and imagination, who are willing to work overtime, and who are eager to learn. Such people are usually glad to have someone like the change agent join in getting something important accomplished, and a careful search is likely to turn up quite a few. In fact, there may be enough of them to accomplish general system change, if they can team up in appropriate ways. In building such teamwork the change agent's abilities will be fully challenged, as he joins them in establishing conditions for trust and creativity, dealing with anxieties about being seen as subversive, enhancing leadership, consulting, problem-solving, diagnosing and innovating skills, and developing appropriate group norms and policies.

Certain norms and policies appear to be important for, even critical for, group effectiveness. The group should maintain its informal or invisible status; it may have projects which eventuate in legitimized formal bodies, but it should not act as part of the power structure. Any undertaking of the group should be the property of one of its members, with others in support roles. In planning strategies which involve coordinated action on the part of several members, no member should be bound by the decisions emerging from consultation, but should adapt his behavior according to what he finds in the action scene.

RULE V. LOAD EXPERIMENTS FOR SUCCESS

This sounds like counsel to avoid risk-taking. But the decision to experiment always entails risk. After that decision has been made, take all precautions.

The rule also sounds scientifically immoral. But whether an experiment produces the expected results depends upon the experimenter's depth of insight into the conditions and processes involved. Of course, what is experimental is what is new to the system; it may or may not be new to the change agent.

Build an umbrella over the experiment. A chemical process plant which was to be shut down because of the inefficiency of its operation undertook a union-management cooperation effort to improve efficiency, which involved a modified form of profit-sharing. Such plans were contrary to company policy, but the manufacturing vice president at headquarters was interested in the experiment, and successfully concealed it from his associates. The experiment was successful: the plant became profitable. In this case, the umbrella turned out not to be big enough. The plant was shut down anyway.

Use the Hawthorne effect. Even inadequately conceived experiments are often made to succeed when the participants feel ownership. And conversely, one of the obstacles to the spread of useful innovations is that participants are not likely to feel ownership of them.

Build on strength. For example, if the change agent hopes to use laboratory training as part of his strategy, the first persons to be invited should be those who consistently turn all their experiences into constructive learning. Similarly, in introducing team development processes to a system, begin with the best functioning team.

Maintain voluntarism. This is not easy to do in systems where invitations are understood to be commands, but nothing vital can be built on such motives as duty, obedience or responsiveness to social pressure.

RULE VI: LIGHT MANY FIRES

Not only does a large, monolithic development or change program have high visibility and other qualities of a good target, it also tends to prevent subsystems from developing ownership of, and consequent commitment to the program.

The positive implication of the rule is more orderly than the random prescription -- light many fires -- suggest. Any part of a system is the way it is partly because of the way the rest of the system is. To work towards change in one subsystem is to become one more determinant of its performance. Not only is the change agent working uphill, but as soon as he turns his back,

other forces in the system will press the subsystem back towards its previous level of performance.

If many interdependent subsystems are catalyzed, and the change agent brings them together to facilitate one another's efforts, the entire system begins to move.

Understanding patterns of interdependency among subsystems can lead to a strategy of fire-setting. For example, in public school systems it requires collaboration among politicians, administrators, teachers, parents and students to bring about significant innovation, and active opposition on the part of only one of these groups to prevent it. In parochial school systems, on the other hand, collaboration between the administration and the church provides a powerful impetus for change in the other groups.

RULE VII: KEEP AN OPTIMISTIC BIAS

Our society grinds along with much polarization and cruelty, and even the helping professions compose their world of grim problems to be "worked through." The change agent is usually flooded with the destructive aspects of the situations he enters. People in most systems are impressed with one another's weaknesses, and stereotype each other with such incompetencies as they can discover.

This rule does not advise ignoring destructive forces. Its positive prescription is that the change agent be especially alert to the constructive forces which are often masked and suppressed in a problem oriented, envious culture.

People have as great an innate capacity for joy as for resentment, but resentment causes them to overlook opportunties for joy. In a workshop where a married couple were discussing their sexual problem and how hard they were working on it, it became clear that it would never be solved, simply because sex is not a problem but an opportunity.

Individuals and groups locked in destructive kinds of conflict focus on their differences. The change agent's job is to help them discover and build on their commonalities. The unhappy partners focus on past wrongs, and continue to destroy the present and future with them. The change agent's job is to help them change the present so that they will have a new past on which to create a future.

RULE VIII: CAPTURE THE MOMENT

A good sense of timing is often treated as though it were a "gift" or "intuition", rather than something that can be learned, something spontaneous rather than something planned. The opposite is nearer the truth. One captures the moment when everything one has learned is readily available, and when one is in touch with the events of the moment.

A few years ago my wife and I were having a very destructive fight. Our nine-year old daughter decided to intervene. She put her arms around her mother, and asked: "What does Daddy do that bugs you?" She was an attentive audience for the next few minutes while my wife told her, ending in tears. She then put her arms around me: "What does Mummy do that bugs you?" and listened attentively to my response, which also ended in tears. She then went to the record player, and put on a favorite love song ("If Ever I Should Leave You"), and left us alone to make up.

The elements of my daughter's intervention had all been learned. They were simply available to her, and she combined them in a way that could make the moment better.

Perhaps it's our training in linear cause-and-effect thinking that makes us unable to see the multiple potential of the moment. Whatever the reason, the solution is not to enter the situation blank, and hope that spontaneous action will move it forward. It is not enough for the change agent to have a plan needs or strategy. He nees as many plans as possible. It's not enough for him to have a framework for diagnosis; he needs many frameworks. It's not enough to involve his head in the system; he has to let his heart be involved too. If he has full access to his organized experience, to himself, and to the situation, he is free to be spontaneous -- and capture the moment.

* Robert Frost, "How Hard It Is To Keep From Being King When It's In You And In The Situation," from <u>In the Clearing</u>, pp. 74-84. (New York: Holt, Rinehart and Winston, 1962).

Dissemination of Information from Centralized Bureaucracies to Local Schools: The Role of the Linking Agent

Karen Seashore Louis

The role of the linking or change agent has frequently been viewed as critical for the dissemination of information from bureaucracies to individuals or community groups (Rogers & Shoemaker, 1971). While the number of studies in this area is growing rapidly, until recently most empirical work has either been of the case study variety, or concerned with attempts to introduce new technologies in rural or nonmodernized areas (Jones, 1969). Relatively few empirical works have dealt systematically with the role of linking agents in the spread of innovations in contemporary settings.

This paper examines the impact of linking agents in the context of a federal program designed to increase the use of educational research among local practitioners. The Pilot State Dissemination Project (PSDP), which was inaugurated in 1970, created three state-based organizations which attempted to draw upon existing research information in order to aid practitioners in solving problems or needs which arose in the context of their work. Each of the participating State Agencies (SEA) developed similar structures in order to implement this goal. A retrieval center, located within the SEA, was staffed with personnel whose function was to obtain research materials (in- cluding abstracts and hard copy of articles and research reports, technical educational packages, bibliographic refer- ences, and consultative help) in response to requests for in- formation from educators. A second component of the program was the educational field agent. These agents, seven in all, were to reside in designated target areas, visit individual schools and

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educators, help them to determine the nature of their informational needs, aid them in understanding materials delivered by the retrieval center, and support their efforts to implement new programs or practices based on the retrieval materials.

While the initial program model assumed that all clients would receive similar services from the agents, differences in the amount and type of assistance received through the program inevitably occurred. Variation in agent behavior, in conjunction with the fact that educators who resided in areas not served by the field agents were also permitted to make requests for information, allows us to assess the impact of linking agent behaviors on innovation.

The following analysis is based on a variety of data, including field observations over a period of 18 months, office records, and a survey of clients. The analysis of records and mailed survey were carried out on the entire population of clients over a 5-month period beginning with the second year of the program's operations.

MODELS FOR ANALYSIS

Attempts were made to analyze the program using three major dissemination models derived from previous studies. These models proved to be inapplicable or only partially applicable for reasons which will be discussed below.

1. The Diffusion Model

The extensive literature on the diffusion of innovations has tended to focus on the adoption of specific new practices by individuals. The explanatory variables most frequently examined include individual characteristics of the adopter, or the individual's relations within a social network of peers (Rogers & Shoemaker, 1971; Coleman, Katz & Menzel, 1966; Carlson, 1965). This body of literature provides us with a sophisticated set of concepts and variables which may be related to the adoption process. Due to the nature of these studies, however, little insight is provided into factors outside of the micro-level social system which might influence innovation. Another limitation of the diffusion studies is that they have been almost exclusively concerned with the adoption of a single, highly visible product such as a new drug, or a new hybrid corn.

In the case of the PSDP, however, it was found that the standard background variables, such as age, professional status, professional involvement, and career history did not relate to

client utilization of the information that he had requested. In addition, client context, measured by such factors as the size of the school district and the number of specialists with- in the district, failed to reveal any differences in innovation rates. Because the project did not attempt to introduce a single product, or even a limited range of highly visible products, the sociometric diffusion model was inapplicable.

2. The Marketing Model

A second approach to the problem of innovation may be characterized as the marketing or "research, development, diffusion, and utilization" (RDDU) model. This approach is derived from the vertically integrated systems of R and D found in highly rationalized military and industrial concerns. (Brickell, 1964; Havelock & Benne, 1962; Guba, 1968). The adopter, whether he is a member of the same organization or is located in another context, is viewed as rational in his behavior; when presented with a "good" innovation, he will tend to use it. In addition, he may also be seen as powerless to resist the fol- lowing suggestions made even if he does not immediately per- ceive their benefits (McDonald, 1971; Sieber, 1972).

The marketing model is essentially one of bureaucratic innovation, for those at the top are assumed to know what the client practitioner should be doing. However, the structure of the PSDP program was in direct contradiction to this model. In this case, it was the client who defined his need for informa- tion, while the bureaucracy was then asked to actively search for materials which might help to solve it.

3. The Therapeutic Change Agent Model

A third model of dissemination focuses on the application of interpersonal expertise to client problems (Lippitt, Watson & Westly, 1958; Miles, 1964). This tradition, unlike the previous two, is very concerned with the role of the linking agent. The linking agent is usually seen as an outsider who has both substantive knowledge and human relations skills which will aid in development of an innovative environment within the target group. The client and the agent are seen as collaborators and equals, who form a "temporary problem-solving system" (Miles, 1964) to deal with the issue of concern to the client. A second focus of this literature is on the delineation of orderly stages of problem-solving through which the client should move, such as the development of a need for change, clarification, or diagnosis of the problem, examination of the alternatives, etc.

The therapeutic change agent model bears a strong resemblance to the Pilot State Dissemination Project. The emphasis on the change agent, the belief that perceived needs should condition the change process, and the stress on developing the client's own capacity to think through and solve his problems are all consistent with this approach.

However, attempts to analyze the outcomes of contacts between the educational field agent and his clients in terms of orderly stages of innovation proved to be futile. Clients would frequently resist the stage of "diagnosis." Agent-client relationships did not develop in any orderly or systematic fashion: the concept of the "temporary problem-solving system" did not seem to apply in most cases. Often it was found that clients were not concerned with a search for alternatives but would have a specific innovation in mind. Yet, the program appeared to be highly successful, with 39% of the clients indicating that they used the information for either planning or innova- tion of new programs.

A more basic criticism of the model is that it did not help to account for a variety of phenomena which occurred in establishing the program, such as role overload for the agent or issues of program marginality among the target population. This weakness emerged as a result of the model's narrow focus on the individual client rather than on a system of clients and resources.

THE CONTINGENCY APPROACH AS AN ALTERNATIVE

Given that traditional models of innovation did not seem to account for all of the features of the PSDP, alternative analytical frameworks seemed necessary. Litwak and Meyer (1966) have attempted to identify the dimensions which characterize efforts by bureaucracies to influence clients or local community groups. They point to an array of contingencies which may condition the effectiveness of linkage mechanisms, the most salient of which is the "social distance" between the organization and the primary group. Thus, they do not begin with a model but with many models of linkage which may be analyzed in terms of four dimensions:

1. Bureaucratic initiative. The amount of organizational initiative required to develop a relationship with the targeted individuals or groups. High initiative may be typified by face-to-face contacts between members of the bureaucracy and the target group. Conversely, the greater the reliance on impersonal modes of communication, such as mass media, or letters, the lower the initiative.

2. Intensity. The character and quality of the relationship between the target group and the bureaucracy. Are relations brief and/or instrumental, or are they more extensive, involving the development of nonbureaucratic affective closeness?

3. Expertise. The degree to which the attempt to influence involves the need to apply technical knowledge or to communicate complex messages. This will affect the type of resources needed to develop the linkage.

4. Scope. The number of individuals or groups who the bureaucracy seeks to influence.

This analytic framework has previously not been applied to the problem of disseminating innovations among professional or semiprofessional populations. However, in the Pilot State Dissemination Project, these four basic dimensions did highlight critical issues affecting the outcomes of the program.

Initiative

The dimension of initiative must be examined in light of the social distance which exists between the bureaucracy and the target group. Where bureaucratic programs are closely aligned with the needs or concerns of the community or group, or where the local target group is characterized by a cohesive social network, the amount of bureaucratic initiative needed will be low. At the other extreme, where there is no history of cooperative effort, or where the local groups are highly fragmented, gaining access will require more effort.

In the PSDP, there was a significant underestimation of the amount of initiative necessary to establish the program among local educators. Typically, the field agent's first attempts to obtain clients were through the mass media and through large meetings, but these low-initiative techniques failed to stimulate requests for information. As a result, they quickly switched to higher initiative techniques, such a "hanging around" in teacher lounges, arranging meetings with individuals to discuss specific ways in which the service might relate to them, and taking educators on field trips to visit innovative schools.

What were the assumptions under which the agents initially chose to make low-initiative attempts to develop access to potential clients, and why were these assumptions inadequate under the circumstances? In the initial months, the staff mem- bers appeared to believe that they would achieve an organizational mandate from local administrators. By reaching the man at the

top, they hoped to legitimate their position and gain credibility at the bottom. The schools within the PSDP target area, however, were characterized by decentralized authority structures in which approval of the program at the superintendent level had little or no effect on the acceptance of the program among individual teachers or principals.

The agents also had unfounded assumptions concerning the centrality of the program to local educators. They believed that there would be considerable spontaneous enthusiasm for easy accessibility to the program's research product. Educational practitioners were viewed as motivated professionals who would respond eagerly to the availability of research information. Instead, the agents encountered widespread indifference on the part of most educators. The PSDP was generally seen as one among many new programs which were introduced annually.

The marginality of the program to local educators was reinforced by the fact that there was no visible payoff for the client.[3] It did not offer teachers' aides, or increased financial support for local programs but, rather, the abstract and largely unknown service of providing research information. Another factor hindering rapid access was the status of the agent as a representative of an outside bureaucracy, which created a reluctance on the part of many individuals to reveal problems or needs requiring external assistance.

The lack of organizational or individual mandates which characterized the beginning of the program was, to a large extent, a reflection of the moderate social distance between the State Education Agency bureaucracy and the local schools. The study of the PSDP produced no quantitative indicators which would help in analyzing the direct relationship between the effect of agent initiative in overcoming this social distance, largely because all agents soon turned toward the use of higher initia- tive mechanisms to gain access. However, an indirect indicator of the need for high-initiative techniques may be constructed by comparing the proportion of educators within the target and nontarget areas who made requests.

In two states, requests made by educators located outside of the agent-served target areas were given equal priority in treatment with the target area residents. These educators were reached primarily through mass mailings. Additional attempts were made to decentralize the image of the information service by appointing local representatives to serve as conveyors for requests from within their districts.

Table I. Proportion of Educators Who Used the Service in a Five-Month Period According to Target and Nontarget Areas

State A			State B		
Target area		Nontarget area	Target area		Nontarget area
1	2		1	2	
11.7%	1.6%	.004%	13.5%	3.2%	.009%
(551)	(2,500)	(26,564)	(651)	(2,860)	(22,000)

We find a large difference in the use of the service between the areas served by field agents and those having access only to low-initiative linkages. Within four target areas the proportion of educators making requests ranged between 1.6% and 13.5%. Among the nontarget areas within the states, however, the rates of use were only .004 and .009% (Table 1).

A further indicator of the importance of high-initiative techniques in stimulating the use of an information dissemination service may be seen in comparing the four target areas. The two agents who served a relatively small number of educators stimulated requests from a larger proportion of the total population than the two agents who served much larger target areas. This leads us to believe that it is not merely the "Hawthorne Effect" of having a linking agent present in the district which encouraged educators to use the service. Instead, the ability of the agent to meet personally with the individuals was of critical importance.

The significance of this finding would be questionable if the agents were dealing with a difficult-to-reach population, e.g., a less well-educated, socially fragmented, possibly lower income group. The PSDP program, however, was designed to reach organized professionals. Such a group is often assumed to be relatively open to new information or programs (as in the "marketing" model described earlier), and easier to reach because of the professional networks through which information may be transmitted. While on the basis of this study we would not challenge these assumptions, the data lead us to question whether low-intensity mechanisms will be effective in an interventionist change program even under relatively advantageous conditions.

Intensity

At the beginning of the program there was some consensus that field agents should develop relatively intensive relations with the educational personnel who made requests. Underlying this expectation was the assumption that clients would be more motivated to think through their problems and to plan new programs if they had individualized relationships with an outside "change agent." On an empirical level, we may ask whether the assumption of a need for an intensive relationship between the linking agent and the program client was a reasonable one. According to the marketing model of innovations, the disseminator of information need not necessarily develop a highly intensive relationship. Where the client is assumed to be a rational man who has adequately assessed his need for information, the provision of that information should be sufficient to motivate him to use it (given, of course, an environment which provides the necessary resources to support the innovation). The "therapeutic change agent" model and the Litwak and Meyer formulation, on the other hand, imply that, since the process of innovation involves a host of complex and nonrational elements, the development of a supportive, individualized relationship may, in some circumstances, be critical.

The survey of program clients included an indicator of the intensity of the relationship by asking the respondents to indicate how much time the agent had spent with them at two points: before the information was requested and after the information was delivered. In addition, subjective and objective measures of the usefulness of the information were included. Clients were asked to rate the perceived usefulness of the information on a four-point scale ranging from "very useful" to "not at all useful" and were asked to describe what they had actually done with the information. The latter question was coded into a four-point scale ranging from "not used" to "implemented a new practice or program on the basis of the information." As Tables IIa and b indicate, the intensity of the relationship between the agent and the client is highly related to both the client's satisfaction with the information and his or her actual use of the information.

Table IIa. Correlations Between the Intensity of Client-Agent Relationships and Measures of Subjective and Objective Usefulness of Information (N = 331)[a]

	Subjective usefulness	Objective Use
Intensity of relationship before information was requested	.15	.16
Intensity of relationship after information was requested	.14	.13
Total intensity (time before plus time after)	.18	.15

[a]Kendall's Tau statistic significant at .0005 or better.

Table IIb. Intensity of Client-Agent Relationships and Utilization of Information[a]

	Intensity[b]			
Utilization	0-15 minutes	15-30 minutes	30-60 minutes	over 60 minutes
Nonusers	30%	31%	12%	15%
Readers	34	42	47	36
Planners	16	18	19	24
Implementers	18	9	22	24
	100%	100%	100%	100%
	(84)	(45)	(64)	(122)

[a]Target area clients only are included in this table.
[b]Intensity is computed as the sum of reported time spent with the agent before and after requesting information. Kendall's Tau: .15, significant level: .0001.

The causal relationships between the variables are not entirely clear, particularly in the case of the intensity after the delivery of information. Here we suspect that agents were disinclined to spend a great deal of time with clients unless some enthusiasm was expressed. However, the fact that the intensity of the relationship prior to submitting a request for information is strongly related to both the subjective and objective measures of use lends credibility to a causal interpretation. At this point, neither the client nor the agent knew whether or not suitable information would be found. Thus, it seems reasonable to assert that the agent's contacts with the client somehow increased the latter's propensity to view unfamiliar research abstracts positively.

An additional finding lends support to these conclusions. Despite the high correlation between the subjective and objective measures of usefulness (Kendall's Tau .45), intensity of interaction is still significantly correlated with objective use among those persons who indicated that the information was "very useful" or "moderately useful." Among those who indicated that the information was "only slightly useful" or "not at all useful," however, there was no correlation (Table III). This finding indicates that, while the client's "rational" assessment of the information is important in the dissemination and utilization process, the input of change agent activity from the bureaucracy has an additional impact.

Table III. Correlations Between Intensity and Utilization of Information Controlling for Level of Satisfaction with the Information

Level of satisfaction	Kendall's Tau	Significance level	N
"Very useful"	.14	.03	(18)
"Moderately useful"	.12	.02	(123)
"Only slightly useful/ not useful"	-.08	.15	(73)

Expertise

A latent assumption underlying the Dissemination Project was that two distinct types of expertise were needed in order to facilitate innovation. The first type of expertise was technical and related to the provision of specialized information which would help solve the client's perceived need. The second

type of expertise did not involve specialized technical knowledge, but the exercise of generalist change agent skills. These included an ability to develop satisfactory relations with clients, an ability to understand and analyze a wide variety of organizational and pedagogical problems at a relatively nontechnical level, an ability to synthesize and communicate research-based ideas to persons who were not familiar with the use of research abstracts and articles, and an ability to aid school personnel in planning and implementing new programs within their specific context.

A question of some interest in linking efforts of this type is the degree to which the linker himself must be a technical specialist when relatively specialized information is being conveyed. Previously it was shown that field agents had an impact on client behavior even though they were not necessarily better informed about the content of the retrieved information than the client (and in some cases, were less well-informed). We may, however, ask whether or not their impact would have been greater had they been able to provide additional legitimation of the information through their own expert insights.

A tentative answer to this question may be given by examining the relative impact of different types of personal assistance on client's utilization of the information. The questionnaire asked whether the client had contact with specialist consultants either from the SEAs, district or regional education offices, or universities regarding their request. We may derive from this information a simple four-category classification of personal assistance: 1) assistance from the field agent and a specialist; 2) assistance from a specialist only; 3) assistance from a field agent only; 4) no personal assistance from a linking agent. As Table IV indicates, educators who received no assistance were considerably less likely to use the information for planning or implementing than were any of the groups receiving personal assistance, while those who had contact with both a specialist and the field agent were most likely to use the information. However, those having contact with the agent only were slightly more likely to make use of it than those who had assistance only from a specialist. The implication is that outside specialists are no more effective in stimulating clients to innovate than are field agent semi-experts, but that providing assistance from a variety of sources--written, specialist, and generalist--will increase the effectiveness of the linkage.4

Table IV. Utilization of Information by Source of Personal Assistance

Utilization index	Source of assistance[a]			
	Agent and expert	Agent only	Expert only	No assistance
Nonusers	17%	18%	20%	26%
Readers	39	39	41	43
Planners	27	20	21	17
	44%	43%	39%	32%
Implementers	17	23	18	15
	100%	100%	100%	100%
	(64)	(155)	(138)	(192)

[a]Kendall's Tau: .09, Significance level: .0007.

Turning to the issue of the agent's semiexpertise, the above finding leads us to the question what it was that the agent did which caused his clients to use the information with greater frequency. Was it intensity alone which stimulated clients to use the information, or was it some change agent intervention?

Qualitative data gathered from the field studies of agent behavior indicated that intensive relationships between the agent and the client were associated with the agent's behaving as a change agent. This was, however, not always the case. In some instances, the agent would be in relatively frequent contact with a client over a long period of time, without actively attempting to influence client behavior. One field agent, for example, worked extensively with the music committee in a grade school, but limited her function to retrieving new information when the teachers felt that they needed it, and attending committee meetings so that she could keep abreast of their plans. In other instance, the agent performed only one of the possible instrumental functions which were within the scope of this role--for example, he may have played little part in helping to define the problem, but have aided the client in going through the retrieved information when it was returned.

The questionnaire asked clients to rate the agent's performance on nine dimensions. Of these, four items pertained directly to behaviors identified as the semiexpert functions of the linking roles: initial understanding of the client's problem, help in specifying or diagnosing the problem, help in interpreting information when it was delivered, and help in implementing a new program or practice on the basis of the information. for the purposes of this analysis, a single variable reflecting the

client's perception of the agent's expertise was calculated by summing the rating scores received on the individual variables. While this measure is a rough one, it does provide an indicator of the degree to which the agent behaved expertly in dealing with the client's problem.5

We would expect on the basis of the model under which the program was operating and the qualitative observations to find a strong correlation between the perceived expertise of the agent and utilization. However, given the strong correlation between the theoretically independent measures of intensity and expertise (.37), a more important question is whether either variable had independent effects on use, or whether it was the interaction of these two which best predicted the successful attempt at linkage.

As can be seen in Table Va, the partial correlations result in both cases in a large reduction in the correlations of intensity and expertise with use. Looking at the collapsed table (Vb), we can see more clearly the magnitude of the interdependence between intensity and expertise as causal variables. The difference in the proportion of clients who used the information where both intensity and expertise were high is 21 to 30% greater than in any of the other cells. On this basis it may be concluded that, in order for the linking agent to influence the behavior of the individual client, he must not only develop a relatively intensive relationship with him, but he must also exercise change-agentlike skills. In the absence of either of these characteristics of the linkage, the clients will be considerably less likely to innovate.

A final point concerning the impact of the linking agent on client decision-making can be drawn from the data. Respondents to the questionnaire were presented with a list of problems that they might have encountered with the information, ranging from lack of relevance to the difficulty of actually using it in their context. As expected, there was a negative relationship between the number of problems which the client checked and the utilization index (-.16).

Table Va. Simple and Partial Kendall's Tau Correlations Between Use of Information, Intensity and Expertise[a]

Variable	Simple correlation (with use)[b]	Partial correlation[c]
Intensity	.15	.8
Expertise	.16	.10

[a]N = 315.
[b]Significant at the .0001 level.
[c]Significant at the .05 level.

Table Vb. Percentage of Clients Who Used the Information under Different Conditions of Intensity and Expertise

Perceived expertise	Intensity: High	Intensity: Low
High	54% (123)	24% (34)
Low	27% (63)	33% (95)

Among those clients who indicated that they had no problems with the information, the intensity of interaction with the agent had little impact on utilization (Kendall's Tau .70, n.s.). Among those persons who did have problems, however, there is a strong correlation between the amount of time spent with the agent and the utilization index (.21). This finding provides further support to the contention that among a semi-professional population such as this one, it is not intensity alone which accounts for the influence of the linkage. Instead, it may be concluded that the agent is influential largely in situations where there is a need for instrumental assistance and change agent expertise in overcoming barriers to change.

The above discussion only begins to scratch the surface of the theoretical and empirical questions surrounding the role of expertise in relations between bureaucracies and community groups whom they seek to influence. We have, for example, shown that specialist and generalist linking agents seem to be

equally influential. It is difficult, however, to separate this finding from the concomitant fact that agents were frequently more readily accepted by local populations because they were perceived to be closer to the needs and value orientations of those whom they served. Social distance, therefore, may determine the effectiveness of nonindigenous technical experts (see also Corwin, 1972).

It has also been shown that linking expertise and intensity must occur simultaneously for the linking agent to have an impact, but given that our data comes from essentially similar types of organizations and environments this finding may not be generalizable to other superficially similar populations (e.g., doctors, scientists, social workers, etc.). Despite these reservations, however, we may conclude that focused, intensively applied linking expertise is critical in determining the effectiveness of an information dissemination program of this type.

Scope

The need for intensity and expertise in the linkage had considerable implications for Litwak and Meyer's fourth dimension, scope of program operations. As we have seen, the use of high interpersonal initiative increased the requests for information, but unless these less motivated clients also received considerable attention from an agent, the information received was likely to fall on barren soil. Thus, the agents were in a double bind. They were under some pressure to solicit large numbers of clients in order to increase the visibility and impact of the service, but this meant that they had limited amounts of time to spend with them. The agents had, theoretically, two possible responses to this situation of role overload: they could have routinized the handling of all their requests to some degree, and apportioned their time equally. Alternatively, they could have selected among their clients a few who would receive relatively intensive treatment, while others would receive little attention. In practice, the agents tended to choose the latter modus operandi, largely because they found it more satisfying to become heavily involved with specific projects. An examination of the total amount of time spent with clients shows an almost bimodal distribution: most clients either spent 15 minutes or less with the field agent or more than an hour (Table VI). In addition, it has elsewhere been shown that the larger the agent's caseload, the less likely he was to perform critical assistance functions after the delivery of information (Sieber, Louis, & Metzger, 1972).

The conflict between scope and intensity has critical implications for the design of linkage systems in similar contexts.

This is particularly evident given the importance of intensity in increasing the influence of the linking agent.

Table VI. Distribution of Total Interaction Time

Interaction time	%
0-15 minutes	32%
15-30 minutes	16
30-60 minutes	19
over 60 minutes	36
	100%
	(321)

The Impact of Exogenous Variables

Finally it seems advisable to examine some of the characteristics of the client and his context in order to ensure that our findings are not merely artifacts of underlying individual or social phenomena. As was pointed out earlier, none of the individual or contextual variables included in the questionnaire proved to have a significant relationship with the dependent variable of use. Additional analysis which attempted to include these variables produced only a few unpatterned relationships.

Two other factors were, however, hypothesized to be highly related to use. The client's motivation to request and use information within his job was anticipated to be extremely important in explaining the rate of utilization. Client's motivation prior to making the request was measured by two questions. One dealt with the client's perceived sense of urgency about his or her problem, while the second asked whether the request had been made as part of an ongoing program of change within the school. The responses to these questions were combined into an indicator of motivation, which correlated .11 with use (significant at the .005 level).

On the basis of the diffusion literature, the microlevel social context and social integration of the client were also hypothesized to be strongly related to use. Our indicator of social/professional integration was the number of different categories of role partners with whom the material was discussed, and this measure was correlated with the utilization index .24 (significant at the .0001 level).

The question here is whether field agents were "biased" toward motivated and professionally integrated clients such that the

"field agent effect" is reduced. When these factors are controlled for, as Table VIII reveals, the relationship between utilization and intensity is reduced only slightly by the introduction of these variables, while the relationship between utilization and expertise remains unchanged.

Table VII[a]

	Simple correlation	Partial correlation (motivation)	Partial correlation (socio/professional integration)
Utilization index by intensity	.15	.12	.12
Utilization index by perceived expertise	.16	.16	.16

[a]Significance level .0001 or better.

SUMMARY AND CONCLUSIONS

From our analysis we conclude that the interpersonal linker was successful in increasing the impact of a State-sponsored information dissemination program. The success of the agent was dependent on the use of high-initiative techniques in publicizing the program, the development of relatively intensive relations with clients, and the provision of instrumental help both before and after a request for information was made. The generalist linking role was seen to be critical to the linking process even when other important variables, such as motivation and social integration, were controlled for. The need for the interpersonal linking agent to develop close, helping relations with members of the target group limited their ability to provide the same high levels of service to all clients, however, and thus counteracted their efforts to increase the scope of the program's impact (as opposed to request rates). Our findings can be summarized in the form of a diagrammatic model which shows the interrelationships between the variable which have been examined (see Figure 1).

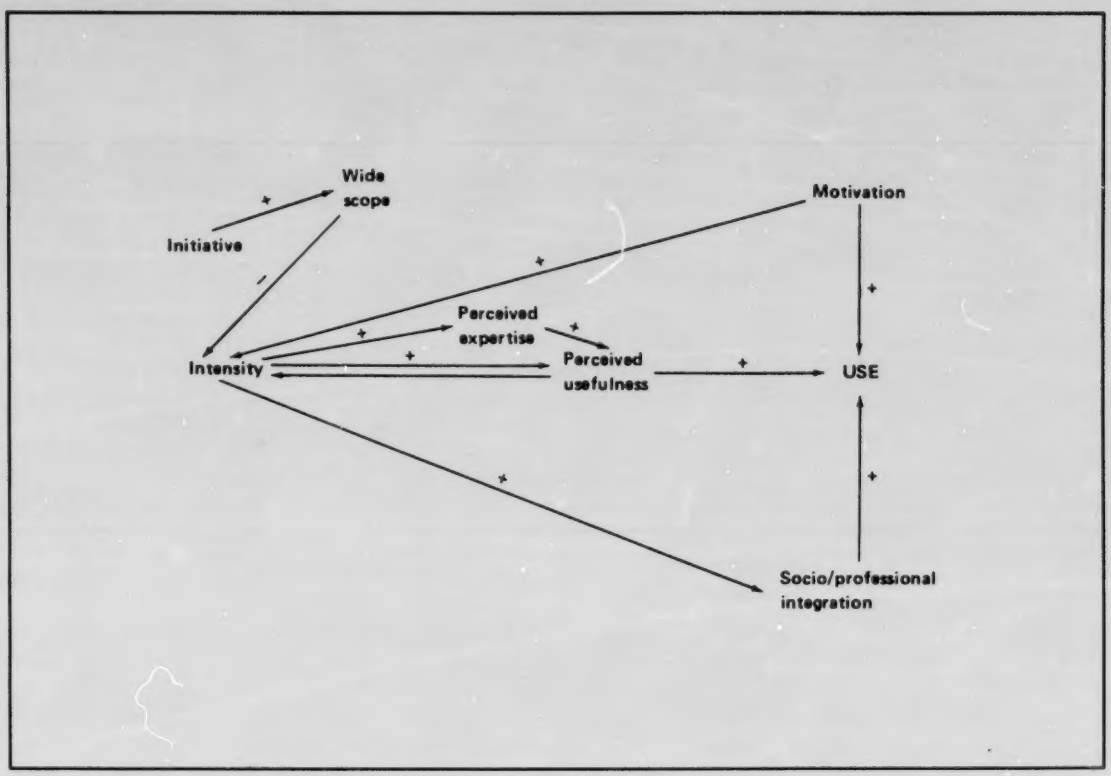

FIGURE 1

Interaction of Linkage Variables

It is important to note that the need for initiative, intensity, and expertise in dissemination programs must be viewed in the context of the contingency model proposed by Litwak and Meyer (1966). According to this approach, moderate to high levels of initiative, intensity, and expertise were important in the case of the PSDP because of the social distance or lack of preexisting coordination between the centralized bureaucracy and the targeted professional population; the bureaucracy's desire to ensure that actual innovations were made on the basis of the information to be disseminated; and the variability and relative complexity of the information sent out. The contingency approach would predict that a change in any of these latter characteristics would affect the type of linkage which might be most effective. Thus, for example, if only one relatively simple innovation were being disseminated, the need for intensive interaction and change agent expertise might be more

limited. Furthermore, one might predict that the institutionalization of cooperative information services by the SEA might eliminate or significantly reduce the need for continuous high-initiative solicitation of clients by linking agents. Clearly the problems of dissemination among a professional population involves a spectrum of potentially useful models. We would suggest the need for new field experiments, which might well be conducted in the context of ongoing social programs, to determine more precisely the parameters which might affect the impact of dissemination or continuing education programs among different populations.

FOOTNOTES

[1]This paper was presented at the American Sociological Association Meetings, Montreal, 1974 (#64).

[2]Requests for reprints should be sent to Dr. Karen Seashore Louis, ABT Associates, Inc., 55 Wheeler Street, Cambridge, Massachusetts 02138.

[3]One of the points made in the diffusion literature is that product visibility is an important predictor of the rate of diffusion (Rogers & Shoemaker, 1971).

[4]This, of course, does not eliminate the possible need for expert involvement to ensure appropriate and adequate implementation.

[5]An aside should be made at this point concerning the validity of this measure. The other five items included in this battery were chosen largely because they were "motherhood" items, which allowed the clients to indicate that they got along well with the agents. An internal check of the distribution of these responses indicated that the agents were much more likely to receive low ratings on the items identified as critical elements in the linking role than they were on the other five items. Furthermore, the agents scored lower on those items which were considered to be more difficult--for example, we anticipated lower ratings on the items dealing with agent help in planning and implementing new practices than on the item dealing with his initial understanding of the client's problem. These internal checks lead us to believe that the client ratings of the agent's performance, in some sense, do reflect actual variations in behavior rather than generalized positive or negative feelings about the agent.

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Federal Programs Supporting Educational Change: Executive Summary

Paul Berman, Peter Greenwood, Milbrey McLaughlin, and John Pincus

SUMMARY

Under the sponsorship of the U.S. Office of Education, Rand has been conducting a study of federally funded programs designed to introduce and spread innovative practices in public schools. These change agent programs normally offer temporary federal funding to school districts as seed money. If an innovation is successful, it is assumed that the district will continue part or all of it using some other source of funds and it will be disseminated to other districts who are interested in replicating it.

The Rand study examines four such federal change agent program-Elementary and Secondary Education Act Title III, Innovative Projects; Elementary and Secondary Education Act Title VII, Bilingual Projects; Vocational Education Act, 1968 Amendments, Part D, Exemplary Programs; and the Right-To-Read Program.

A Major objective of this change agent study has been to describe the institutional and educational processes which appear to affect the success of innovative education projects. This report synthesizes the findings from 29 exploratory case studies of such projects, performed in parallel with a nationwide survey of 293 change agent projects that were in their last or next to last year of funding during the 1973-1974 school year.

SAMPLE SELECTION

The case study sites were selected to include a sufficient number of projects from each federal change agent program so

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that we could assess the effects of different federal policies, while providing, insofar as possible, a diversity of demographic and institutional settings. Further, because the fieldwork was exploratory, we oversampled on reported "project success," and attempted to include those projects that seemed able to provide rich data on the change process. Our project selection was based on data from a preliminary analysis of the survey data, from screening interviews with candidate LEAs, and from a review of project abstracts and evaluations.

In order to minimize the degree of variability that each field observer would have to deal with, we limited our selection of case studies to five types of innovations: career education, bilingual education, reading, staff development, and classroom organization. The first three types are those supported by the Vocational Education, Title VII, and Right-To-Read programs, respectively. The last two represent particular types of Title III projects we decided to focus on because they were trying to bring about significant and wide-ranging change.

Our five groups of projects varied in complexity depending on the curriculum area and target group focus, or on the type of behavioral change they were attempting to produce.

The career education projects, which primarily involved the development and introduction of new curriculum materials, field trips, counseling, and work experience programs, were the least complex of our sample. No significant classroom changes were usually required, other than the coverage of new curriculum materials. In only one case did the career education project provide a framework for instituting fundamental reforms. None of our sample districts appeared willing to pick up the costs of project funding after the outside grants expired.

The bilingual projects were somewhat more complex; they attempted to deal in a novel way with the learning problems of a particular target group. Some of them attempted to use open classrooms or other nontraditional methods of conducting classes. They also created new demands on LEA administrators by making them recognize a potent new community interest group.

The reading project, although confined to a single well-specified curriculum area, sometimes sought to achieve considerable change in instructional technique. All of our sites were urban districts which were supposed to be implementing some form of "complete reading program" based on the diagnostic/prescriptive method of instruction. Actually, several of the sites used their funding for much more limited purposes or to support activities that were only tangentially related to reading instruction.

The staff development projects were a more comprehensive attempt to improve teacher effectiveness-primarily through a program of in-service workshops and classroom technical assistance designed to confront participants with the limitations of traditional methods and to demonstrate the value of a new behavioral change techniques. In some cases this training effort was coupled with some specific plan for modifications in the LEA's instructional program.

The classroom organization projects were the most complex attempt at change we observed. Three of the projects focused on strategies of informal education: multiage grouping, open education, and integrated curriculum. One involved team teaching and differentiated staffing, while another involved an alternative school-a street academy.

STUDY APPROACH

Each of the case studies was carried out by one or two researchers visiting the project site for several days to interview project participants and other district personnel, and to observe the educational program in both project and non-project classrooms. From these interviews and observations, we drew inferences that made judgments about the factors that led to the initiation of the project, the quality of its implementation, and the impact it has had.

In organizing our report, we have chosen to characterize the process of innovation in three phases; initiation, implementation, and outcomes.[1]

Initiation includes identifying a need or opportunity for a particular project and specifying a strategy for carrying it out. It includes generating local support for the project's objectives, choosing a project strategy, and trying to get funds.

Implementation consists of making the project function in the local setting. It includes administration, training, materials development, planning, and evaluation, as well as all the decisions necessary to adapt the project and the local institutions at the site to each other's requirements.

The project outcomes are the effects-long and short-term, direct or indirect-that a project has on the adopting district. These outcomes can include student performance, classroom atmosphere, teacher behavior, or impact on the district's program. Their persistence or long-term impact is affected by the degree to which project techniques are continued after the federal grants are ended and disseminated to other schools or districts.

INITIATION

Initiation of most projects was motivated by either fiscal opportunism (a chance to obtain additional funds) or interest in fulfilling a specific local need. We did not find districts taking an R&D or experimental approach to innovation. Those projects that represented opportunity-based behavior generally lacked the commitment and support of the local administration and failed to result in significant change. Projects initiated in response to a local need, on the other hand, usually were strongly supported by the district, giving the project status in the eyes of participants and resulting in instances of significant change. Also, projects that addressed goals related to important district concerns were more likely to result in change than those that addressed less central local or federal concerns.

Most projects were based on information or treatments that were already known locally rather than using information derived from a search for alternatives. If staff members who were expected to implement the project were allowed to participate in the development stages, then there were usually fewer implementation problems, while projects that were designed by "outside experts" generally failed to gather support or achieve their objectives.

IMPLEMENTATION

Implementation occurs when the project plans confront reality-when participants attempt to carry out the proposed innovative strategy. As hypothesized in our review of literature on educational innovation (Vol. I), we found that implementation was essentially an organizational process of mutual adaptation between the project design and the institutional setting, and that implementation strategies had a significant effect on the project outcomes. Implementation was most successful when based on strategies that fostered mutual adaptation and permitted it to take place, specifically: on-line planning efforts and continuing reassessment of project methods; provision of extensive pre-service and in-service training for all participants; frequent, regular meetings of project personnel to discuss problems and share ideas; and the local development of project materials, as opposed to the utilization of commercially prepared packages. This latter activity provided an opportunity to "learn by doing" as well as a sense of identification with the project's goals and understanding of its precepts.

In motivating participants, intangible professional and psychological incentives were more significant than tangible incentives such as extra pay or credit on the district's salary

scale, although the latter types of rewards were frequently used.

Elementary school projects were more successful than junior or senior high school projects. Also, districts with prior innovation experience were less likely to have implementation problems than those less experienced. But the existence of several innovative projects in a single district often detracted from the attention paid a given project, and thus from its chances of success.

Other factors leading to more successful implementation included: the existence of a critical mass of participants in any given school who could provide each other with mutual support; strong administrative support from all levels of the system; a flexible administrative approach to unexpected contingencies; and classroom technical assistance to complement training or materials development components.

PROJECT OUTCOMES

The project outcomes of interest to this study were: the effects of the project on classrooms, teachers, and students; the extent to which the project treatments were continued after the special project funding ended; and the amount of dissemination which took place between the project schools and non-project schools, both within the LEA and to other districts.

Although most of the projects we observed did lead to noticeable changes in project classrooms, the staff development and classroom organization projects had more effect on the atmosphere and activities of the classroom than did the more narrowly focused projects. These effects were most apparent in the lower grades. The classroom organization and staff development projects also resulted in the most significant and pervasive changes in teahcer behavior and attitudes. When changes were made in only one part of the curriculum, such as reading or career education, these changes seldom affected other subjects, even when they were taught by the same teacher.

Although few, if any, of the projects which had completed evaluation studies could demonstrate significant gains in student achievement, some projects, particularly those involving classroom reorganization, did report improvements in student attendance, school-related attitudes, self-control, and confidence.

Our fieldwork provided some evidence that project continuation decisions are not made on project merits alone. In particular, formal evaluation seemed to have very little effect on the continuation choice. The initial commitment of the LEA adminis-

trators to the project appeared to be the dominant single factor.

We also found that projects which replaced existing practices were more likely to continue than those which merely supplemented the existing curriculum. Other factors which appeared to raise the likelihood of project continuation were: an emphasis on training rather than the introduction of new technology; training focused on practical classroom issues rather than theoretical concepts; local development and direction rather than reliance on outside consultants.

Only a few projects were actively engaged in dissemination activities. We observed very little evidence of "lighthouse" effects even within the host district. This was primarily due to lack of interest from nonproject schools rather than to lack of visibility for the exemplary projects. The most productive dissemination efforts appeared to occur where the disseminator was helping other schools or districts build up their innovative capabilities rather than attempting to replicate a specific model.

FEDERAL AND STATE PROGRAM MANAGEMENT STRATEGIES

State education agencies played an active role only in the state portions of Title III (85 percent of the funds) and Vocational Education (50 percent). In all of the other programs, the states showed little interest in the federally funded sites within their jurisdiction. The only exception was that some states with their own active bilingual programs attempted to assist or benefit from the federally sponsored projects.

Project selection procedures ran from open competition with a minimum of political interference under state Title III, to straightforward nomination procedures based on LEA characteristics, as in the Right-To-Read demonstration projects. The competitively generated projects evidenced a much greater degree of LEA commitment, probably because the competition itself required hard work by the applicants and because the selection boards' renewal procedures kept up the pressure on districts to perform.

Project monitoring ran from fairly strong under state Title III to nonexistent for the Right-To-Read demonstraction projects or federal Title III. Projects supported by these latter programs diverged from their initial objectives more frequently than did the other programs. Most LEAs seemed quite perceptive about the degree of freedom they had.

Only in a few of the state Title III projects did the formal

project evaluations seem to have any operational effect, and then largely at the personal insistence of the project monitor. For many of the other projects, the funding agency collected no useful feedback concerning project results, nor did the LEAs appear to use evaluation evidence. Termination or redirection of projects because of poor results appeared to be extremely rare.

In general, the states played a passive role in disseminating project results, leaving this up to the sponsoring LEA. Only a few states had a formal procedure for screening projects and disseminating the best of them.

VI. SUMMARY OF FINDINGS

The preceding sections described the central elements of the process of change that characterized the projects we visited, and our assessment of the major differences in the four change agent program management strategies. This section presents a summary of the major findings reported in each section.

INITIATION

A broad hypothesis generated by the conceptual framework described in Vol. I is that district-level support and commitment underlying project initiation affect project implementation and outcomes. Our fieldwork provided strong support for that hypothesis.

Our most general finding was that the initiation process was characterized to a greater or lesser extent by two "models" of adoption: opportunism and problem-solving. That is, most districts initiated federal change agent projects primarily either because the money was available, or as a solution to a specified local need. In only a few instances were projects suggested by new information or outside change agents (n.b. "social interaction" and "linkage" models of change). None of the projects we observed evidenced an R&D, experimental, or even quasi-experimental approach to change.

The projects that were characterized by simple opportunity-based behavior also generally lacked the commitment and support of local district administrators. In the projects we observed, this support was not subsequently generated during project implementation-despite project accomplishments. The frequent result of this lack of district-level support and commitment was that the project staff failed to take the project goals and objectives seriously, morale suffered, implementation floundered, and significant change seldom occurred.

Projects that were initiated primarily as a response to a local need, on the other hand, were usually characterized by a high level of district support and interest. This commitment gave the project status in the eyes of participants and helped staff weather the rough first year or so of implementing significant change in traditional practices.

Other specific findings concerning the initiation process were related to this general finding and its importance for district commitment:

- Projects that were initiated because of a specified local educational need were the most successfully implemented and led to the most change in district practices.

- Projects that addressed goals that the LEA perceived as central were more likely to result in significant change than projects undertaken to satisfy some less central local or federal concern.
- Change agent projects were usually designed utilizing information or treatments that were already known locally, rather than employing information gathered in a search for alternative practices.
- Projects that involved staff responsible for project implementation in project development usually had less trouble with implementation.
- Projects designed by "outside experts" generally failed to gather the support of LEA participants or achieve their objectives.

IMPLEMENTATION

The two general hyoptheses suggested by our conceptual framework-that innovation is essentially a process of mutual adaptation, and that implementation strategies will significantly affect project outcomes-were supported by our field observations. We found that where significant change occurred in district practices, project implementation was characterized by adaptation in the initial project design over time and by modification or change in the institutional setting and its members.

Similarly, the characteristics of the innovative project that we found to be most consistently and significantly related to successful implementation and change were those implementation strategies that fostered mutual adaptation and permitted it to take place. Specifically:

- Successful project implementation was found to be related to the type, not to the amount of project planning. "On-line" project planning that was an ongoing process permitting frequent reassessment of project methods and goals were found to be the most effective.
- The more training given project staff, the better. Preservice training, combined with in-service training, was found to be particularly important to projects expecting staff to implement the far-reaching changes embodied in projects such as the classroom organization projects.
- The most effective training took the form of a very concrete "how-to-do-it" workshops given by local personnel. Outside technical assistants were generally not effective in the training role.
- Frequent, regular meetings of project personnel facilitated project implementation. They provided a forum for discussing project problems, sharing ideas, and promoting staff morale.

- The local development of project materials, as opposed to the utilization of commercially prepared systems, appeared to contribute to project implementation and the amount of change achieved. Local development provided an opportunity for "learning by doing" as well as a sense of identification with project goals and more thorough understanding of precepts.
- Intangible professional or psychological incentives were more effective in soliciting teacher cooperation and involvement than were more tangible incentives such as extra pay, credit on the district salary scale, and the like. Similarly, projects staffed by volunteers were more likely to be successfully implemented.
- Elementary school projects were typically more sucessful than high school or junior high school projects.
- Project success was more likely where participants formed a sufficiently large group (a "critical mass") to provide mutual support and share ideas.
- District and project personnel experience with innovation generally and/or with the specific new practice to be implemented facilitated project implementation.
- The existence of other innovative projects in the district sometimes detracted from the attention paid a given project and thus its chances of success.
- Strong administrative support from all levels of the system appeared to be essential to successful project implementation.
- A flexible administrative approach and open communication channels were typical of projects that were able to deal effectively with the unanticipated events that occurred in the course of an innovation.
- Significant classroom changes were more likely to occur when staff were provided with ongoing administrative or technical help from local resource people that complemented the training or materials development phases of the project.

PROJECT OUTCOMES

The following project effects on classrooms, teachers, and students were noted:

- Staff development and classroom organization projects had a greater impact on the atmosphere and activities of the classroom than did the more narrowly focused change agent projects.
- Classroom effects were greater in the lower grades.
- Change in one part of the curriculum-such as reading or career education-seldom affected other parts, even when subjects were taught by the same teacher.

- Classroom organization and staff development projects resulted in the most significant pervasive changes in teacher behavior and attitudes.

We found that among those projects for which evaluation reports were available the results seldom showed significant gains in student achievement scores. Some projects, particularly the classroom organization projects, did report improvements in student attendance, school-related attitudes, self-control, and confidence.

Continuation

One hypothesis suggested by the theoretical framework is that continuation decisions will not be made on the basis of project merit alone, but will include consideations related to the political economy of the institutional setting as well. Our fieldwork provided some evidence to support this hypothesis. We found that project evaluations did not generally play an important role in local decisions to continue or terminate change agent practices. In fact, we observed that some purportedly "successful" projects were to be discontinued by the district, while projects that had demonstrated no clear relative advantage were expected to be continued after the withdrawal of federal funds. These decisions were primarily a reflection of district-level interest in pursuing the project per se, or more tangential political concerns. In addition, we found:

- Projects that attempted to replace existing practices were more likely to be continued than those which merely supplemented the existing curriculum.
- Projects that emphasized staff training (as opposed to the introduction of new technologies) appeared to have the most lasting and continuing effect on teacher practices.
- Training tied to ongoing classroom practice tended to have a more pervasive effect than training not explicitly related to a teacher's day-to-day responsibilites.
- Decisions about project continuation appeared to parallel closely the motivations to initiate the project. Projects that were initiated with strong district support and that were seen as a solution to a particular problem were expected to be continued without exception. Conversely, those projects that represented an opportunistic response and received little or no support from district administrators typically were expected to wither away, even when project objectives were met.
- Projects that were primarily designed or staffed by outsiders (such as consultants or special teachers) were usually not expected to be continued or incorporated.

Dissemination

Only a few of the change agent projects we visited were actively or explicitly engaged in project dissemination activities. The following tentative and preliminary findings concerning intra and inter-district dissemination emerged from our fieldwork:

- Lack of "demand" rather than inadequate or unavailable information seemed to account for the low level of interest in change agent project practices and materials.
- There was little "lighthouse" effect of change agent projects within the host district; project impact was rarely seen beyond particpating schools.
- Dissemination efforts appeared to be more productive where they helped other districts build their own innovative capacities rather than attempting to replicate a specific model.

IMPLEMENTATION OF CHANGE AGENT PROGRAMS BY STATE AND FEDERAL AGENCIES

- State-administered change agent programs were generally better implemented and conformed more closely to proposed project objectives.
- Federally run demonstration projects were frequently ignored by SEA officials.
- Competitively awarded projects appeared more likely to be successful than those funded by nomination.
- Evaluations performed in response to change agent program guidelines were rarely used to modify project design or operation.
- Monitoring of federally administered projects was much more passive and infrequent than monitoring of state-run programs.

In conclusion, we would like to remind the read of the limitations outlined in the introduction of this volume. These findings are interim and must be viewed as preliminary. They will serve to generate hypotheses that will be explored in the second phase of this study. We expect that the findings presented here will be subsequently refined and integrated with our quantitative work as our research proceeds.

[1] See Vol. 1 for theoretical framework supporting this organization.

The Diffusion of an Innovation Through Inter-organizational Linkages

Douglas A. Paul

The need for the translation and institutionalization of the products of knowledge and research has been attested to by many sectors of the educational community.[1] However, empirical investigations concerning the gap between the production of research-based developments and their utilization by educational practitioners have been minimal and conflicting.[2]

Explanations abound for the slow accretion of research and research developments from producers to educational consumers. Problems militating against the timely, comprehensive, and efficient utilization of new knowledge focus on a range of issues: (1) characteristics of researchers[3] and the academic reward system;[4] (2) expectations of practitioners[5] and the myopic perspective of administrators;[6] (3) structures and incentives of public schools[7] and haphazard change programs;[8] and (4) lack of a division of labor for knowledge dissemination and utilization[9] and blockage of inter-system linkage due to restrictive norms, attitudes, and values.[10]

Even though the problem of research and knowledge utilization has been reiterated almost to the point of cliche, there is little understanding of the diffusion and innovation process. Conceptualizations concerning changes and innovation are, according to Baldridge, weak because of (1) adoption of unsuitable paradigms, (2) inappropriate focus of research, and (3) analysis focusing on the wrong problems. He noted that early stages of the development and diffusion cycle are too often emphasized; that innovations frequently studied are

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technical, have a short-range payoff, and are easily evaluated; and that the dependent variable of many studies has been the individual adopters as opposed to the complex organization.[11] There are a considerable number of empirical diffusion studies that focus on individual adopters,[12] and a considerable number of articles addressing the problem of knowledge utilization.[13] However, there are few studies centered on the inter-organization dynamics of diffusion.[15]

An understanding of the problem associated with interorganizational relationships should be helpful for the design and prescription or organizational structures and administrative procedures for the successful diffusion and utilization of research developments. Consequently, the objective of this study was to describe the inter-organizational relationships among a research and development center, state education agencies, teacher education institution, and local schools. Through initial descriptions, tentative relationships may be proposed for future investigation, potentially useful concepts suggested, and problems identified. The exploratory case study reported here was, therefore, heuristic in nature.

CONCEPTUAL FRAMEWORK

Individually guided education and the multi-unit school (IGE/MUS) is the complex educational innovation upon which this exploratory study was centered. It can be considered a significant departure from the normal organizational configuration and administrative arrangement of elementary schools. The innovation of IGE/MUS calls for new organizational structures, roles, and modes of behavior.[16] As such, it is not a technical innovation with a short-range payoff, nor is it easily evaluated. Intrinsic characteristics of innovations affect diffusion. [17] Consequently, one innovation (IGE/MUS) was selected for study thereby minimizing the confounding influence of intrinsic characteristics asscociated with a variety of innovations.

Three systems underlie the diffusion of IGE/MUS: the resource system (national R & D center), the mediating system (state education agencies (SEAs) and teacher education institutions (TEIs), and the user system (local education agencies (LEAs)). The resource system, the source of the innovation, works with the mediating system and with the user system to facilitiate the implemer.tation of IGE/MUS.

The basic thrust of the study was an exploratory investigation of the interorganization relationships between the resource, mediating, and user systems vis-a-vis the adoption of IGE/MUS. Three concepts were extracted from Havelock's review of the literature on knowledge utilization[18] and, somewhat modified, used to describe the inter-organizational relationships

operating among the systems. Linkage, structure, and capability were the three independent variables, and the diffusion of IGE/MUS was the dependent variable.

DIFFUSION

Diffusion was made operational to encompass the actual implementation of the three hierarchial organizational components of the multi-unit school: the system-wide policy committee (SPC), the instructional improvement committee (IIC), and the instruction and research unit (I & R Unit). Although diffusion may be viewed as a cognitive process whereby potential adopters are made aware of an innovation, it was defined here as the actual implementation of the innovation.

LINKAGE

The concept of linkage, emphasized by Havelock as having critical importance for the utilization of knowledge, was categorized according to three factors: type, mode, and frequency.

The type of linkage , was made operational to encompass the functions of conveying information to a system, consulting with the system concerning operational problems, and training systems members to effect new behaviors and roles. These three functions correspond to the three linkage agents roles of conveyor, consultant, and trainer. Conveying involves one-way communication, is relatively simple, and may be conceived as focusing on "what" consulting involves two-way communication, tends to complex, and may be conceived as focusing on "how"; training involves both one-way and two-way exchanges, is complex, and focuses on "what," "how," and "why" questions.

The mode of linkage was made operational according to face-to-face and telephone interaction and print materials. As such, the mode of linkage represented the process by which the three types of linkage could be carried out. Face-to-face interaction, although not assuring two-way transmissions, was considered as having the greatest possibilities for immediate feedback, clarification of message, and perception of reactions to the message. It was also considered helpful for facilitating the changes in roles, attitudes, and behavior prescribed by the IGE/MUS. A less potent but nevertheless important form of two-way transmission was considered to be communication via telephone, although the ability to assess reactions, involve others, and capitlize on feedback was deemed less potent than face-to-face transmissions. The third mode of linkage, written materials such as pamphlets, books, correspondence, and articles, was considered to be a one-way transmission. Of the three modes, print was considered the least potent.

Frequency of Linkage was made operational to include the quantity of face-to-face and telephone interactions and printed materials received. As such, the frequency measure modified the mode of linkage.[19]

STRUCTURE

The independent variable of structure represented intraorganizational factors considered important for achieving diffusion. Structure was broadly conceived as representing the normative axis of the social system model,[20] corresponding to Havelock's description of structure as "a rational sequence of steps, compartmentalized and coordination, division of labor."[21] Four dimensions of structure were posited: coordination, hierarchical communication, specialization, and role clarity.

Coordination was made operational as the degree to which role incumbents work closely together on tasks related to the diffusion of the innovation.

Hierarchical communication was considered an important factor for achieving system-wide control and coordination among district work units. As such, it was conceptually interdependent with coordination but operationally distinct, since horizontal communication among interdependent role incumbents may influence subsystem coordination, whereas vertical communication between hierarchical levels may make possible system-wide coordination.

Specialization was made operational as the degree of division of labor among role incumbents involved with diffusion. Specialization or role differentiation was considered important in view of the diverse activities required to diffuse an innovation and the large scope of the activities.

Role Clarity was made operational as the extent to which role expectations were either implicit and vague or explicit and precise. Explicit role expectations were considered essential for effective behavior.

CAPABILITY

Capability was broadly conceived as representing the resources brought to bear on the diffusion task, parallel to Havelock's conceptualization of capacity: ability to summon and invest diverse resources, time, energy, education, and self-confidence.[22] Capability was made operational according to five dimensions: full-time equivalency (F.T.E.), skills, influence, needs, and past innovative performance.

Full-time equivalency is the actual time allocated for diffusion activities and represented to some degree the institution's capability for, and commitment to the diffusion of the innovation in terms of human and concomitant fiscal resource.

The skills of individuals involved with diffusion reflected a less tangible but nevertheless significant dimension of capability, the knowledge and techniques required to fulfill a diffusion role.

The influence dimension corresponded to the exercise of power and was measured according to perceptions of ability to affect decisions and plans formulated by superordinates As a dimension of capability, it reflected the degree to which role incumbents initiated action to introduce new ideas or modify current practices.

Needs in general were a negative indicator of capability: if needs were high, capability could be inferred as low. This general needs item provided opportunities for capturing a wide variety of concerns not reflected in the diffusion, linkage, structure, or the other capability items.

Past innovative performance was based on the need for confidence and emanated from the proposition that previous success with adopting an innovation may create confidence, act as a stimulus, and form a base for subsequent innovation adoption.[23]

Although the concepts of linkage, structure, and capability were primarily based on Havelock's eclectic and comprehensive synthesis of knowledge utilization literature, the operationalization of and the relationships among the concepts were not explicitly specified on Havelock's eclectic and comprehensive synthesis of knowledge utilization literature, the operationalization of and the relationships among the concepts were not explicitly specified by Havelock. The conceptual focus and the operationalization of the variables and systems explored are presented in Table 1.

Table 1

Operationalization and Conceptual Focus of Factors Explored in the Diffusion of an Innovation through Inter-organizational Linkages.

Factors Explored	Conceptual Focus	Operationalization
Variables		
Diffusion	Effect of intervention: endogenous user system variable	Implementation of three organizational-administrative components of the multi-unit school
Linkage	Inter-organizational dynamic: exogenous resource, mediating, user system variable	Type, mode, frequency of inter-organizational activities
Structure	Intra-organizational status: endogenous resource, mediating, user system variable	Coordination, hierarchical communication, specialization, role clarity
Capability	Intra-organizational status: endogenous resource, mediating, user system variable	Time, skill, influence, needs, past innovative performance
Systems		
User	Recipient of knowledge and assistance from resource and mediating systems	Multi-unit school
Mediating	Intermediate agency juxtaposed between resource and user systems	State education agency and teacher education institution
Resource	Producer and developer of knowledge and source of innovation	R & D center

SAMPLE DESIGN AND METHODOLOGY

The criteria and procedures for the selection of respondents followed from the objective of describing and exploring the relationships between the resource, mediating, and user systems involved with the diffusion of IGE/MUS. Three states, two in the midwest and one on the east coast, were identified as fulfilling the following criteria: (1) they had entered into an implementation contract with an R & D center; (2) they had appointed at least one state coordinator for IGE/MUS implementation; (3) they had established in at least one teacher education institution a program for training and/or assisting in IGE/MUS implementation; and (4) they had established a core of operating multi-unit schools.

Respondents from the resource system included members of the implementation unit and the former director of the R & D center (N=6); respondents from the state education agencies (SEAS) were the state coordinators for IGE/MUS (N=3); and respondents from the teacher education institutions (TEIs) (one institution in each state) included professors actively involved with IGE/MUS activities (N=7). Multi-unit schools within each state were nominated for inclusion in the study by TEI personnel. The rationale for TEI nomination of multi-unit schools was based on the need for assuring opportunities for exploring relationships among the three systems.

Because of the different scope of activities of the resource and the mediating sytems, some initial screening was necessary. The R & D center had a national scope affecting all multi-unit schools, and the SEAs had a statewide scope affecting the multi-unit schools in the state, whereas the TEIs had a regional scope affecting the multi-unit schools in their vicinity. Consequently, MUS nominations were solicited from the organization having the most restricted scope, the TEIs. Seven multi-unit schools nominated by TEI representatives fulfilled the following three criteria: (1) they had implemented the MUS organizational-administrative design; (2) they had considerable contact with the TEI; and (3) they were representative of multi-unit schools in the state. User system respondents (N=18) included seven unit leaders, and four unit teachers (total respondents N=34).

The dependent variable of diffusion and the independent variables of linkage, structure, and capability were explored through an interview schedule semistructured in order to learn of any unanticipated factors, relationships, or concerns.[24] The following four examples of items illustrate the semistructured nature of the interview schedule:

> Diffusion: "Do you consider that (name of school) has established I & R units?" (Definition of I & R unit read to interviewee.)
>
> Linkage: "Please describe the activities you do with the (R & D Center. SEA, TEI, LEA)."
>
> Structure: "How closely do you work with (name of work unit)?"
>
> Capability: "What percentage of working day would you estimate that you spend on MUS activities?"

The schedule was pilot-tested for length and ease of administration, phrasing, and order of questions. Content validity was judged sufficient by a panel of organizational theory experts. During the interview session lasting approximately ninety minutes, verbatim notes and summaries were written and, for salient issues, read aloud to the interviewee in order to minimize distortion and bias. The verbatim notes and summaries of the thirty-four respondents were edited, collated by concept and by state and system affiliation, and tabulated. Approximately 200 pages of transcript (60,000 words) provided the base for the conceptual analysis of the relationships among the three systems. In addition, SEA planning documents, TEI program descriptions, R & D enter travel records, and local school reports were utilized.

FINDINGS

The findings are reported in terms of each concept and in terms of the unanticipated factors. The objective and intent here is to illustrate the efficacy of the concepts as they were made operational for the description of a diffusion program.

Diffusion

The definitions of the three organizational-administrative components of the multi-unit school were read to each interviewee, providing a bench mark from which the extent of implementation could be described. However, descriptions of the extent of implementation varied within schools and between schools. Within-school variation occurred for three multi-unit schools. The principals tended to perceive implementation as congruent with prescribed guidelines, whereas unit leaders and teachers described significant deviations from the guidelines. In some instances it even appeared that respondents were either not describing the same school or that they ignored the explicity defined criteria for describing the extent of implementation.

There appeared to be between-school differences in the extent of implementation of the innovation; however, description of implementation by resource and mediating systems were at time conflicting. Respondents from the resource and mediating systems frequently lacked reliable information concerning the extent of implementation. This finding corresponds to the conclusions of Ironside's national survey of IGE/MUS implementation, namely, that wide variations in implementation militated against an accurate determination of the number of adopters.[25]

The balance between adoption of a development of research in contradistinction to adaption is an important distinction here. Research focusing on imported innovations must be sensitive to the prescribed operational characteristics of the innovation -- i.e., is what is being implemented really the innovation or is it something invented by the user system and called by the same name? Even though the criteria for assessing the implementation of the multi-unit school were described, the inconsistencies among respondents within a school and the lack of information about specific schools at the state or national level militated against an accurate description of the extent of diffusion.

A measurement problem is clearly present: explicit and detailed definitions of the intrinsic characteristics of an innovation are necessary for establishing the criteria to be used for indexing the extent of implementation. Concomitantly, assessment

of the degree of implementation should precede evaluation of the efficacy of the innovation. This coincides with the warning of Charters and Jones against the measurement of the implementation of the multi-unit school. Ironside observed:

> Visits are necessary in order to discern evidence that a school is maintaining a high implementation status.
>
> Questionnaire items at this time are not subtle enough to permit firm conclusions even when the instruments have been completed and 'look; and 'feel' accurate as well as thorough .[27]

Linkage

Havelock;'s concept of linkage was categorized according to linkage activities, linkage processes, and linkage frequencies. Each system described the type, mode, and frequency of linkage with respect to the other systems.

The major findings were: (1) the type of linkage between the TEI and multi-unit schools, the TEI and SEA, and the R & D center and the TEI and SEA was primarily training or consulting with some conveying activities (collaborative two-way communication); (2) the type of linkage between the R & D center and multi-unit schools, and between the SEA and multi-unit schools, was primarily conveying information with some consulting activities (one-way communication); (3) the type of linkage within the mediating system was primarily consulting with some conveying activities (two-way communication between the SEA and TEI); and (4) the frequency of linkage among the systems was in descending order -- TEI-multi-unit schools, TEI-SEA, R & D center multi-unit schools. Figure 1 illustrates the linkage findings. The Roman numeral adjacent to each arrow reflect the relative ranking of the systems in terms of the frequency of linkage, I for most frequent, and V for least frequent. The density of the arrows also reflects either two-way collaborative communication (arrows in two directions) or one-way communication (arrow in one direction).

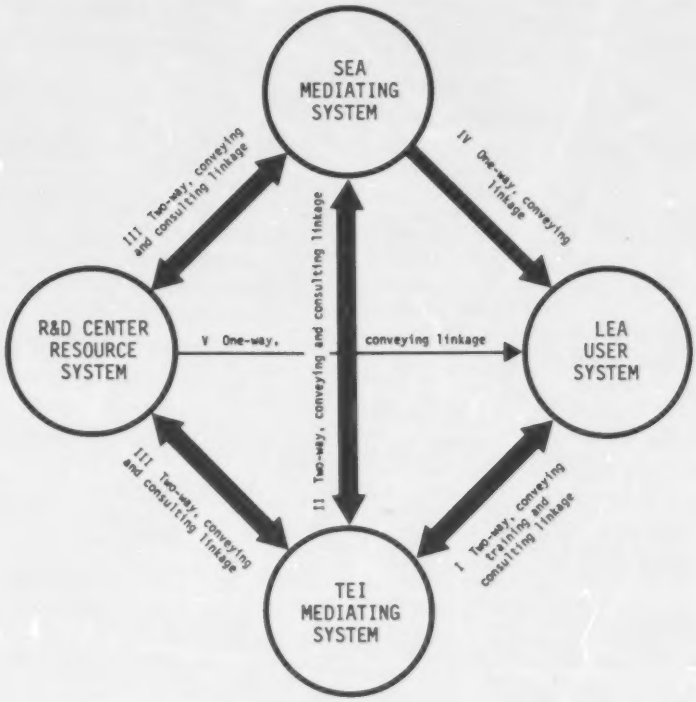

FIGURE 1

The Linkage Relationships among Resource, Mediating, and User Systems

Interview questions structured in terms of the linkage categories and factors provided detailed descriptions of inter-organizational interaction. The descriptions pointed to a number of issues that may extend understanding of the dynamics of diffusion programs between distinct organizations and suggest future research. The scope of the systems may influence the type, process, and frequency of linkage. For example, the R & D center and TEI with respect to multi-unit school linkage activities, processes, and frequencies. The R & D center had a broader perspective and wider range of concerns than the TEI, and, consequently, its linkage role did not include frequent two-way collaborative communication with multi-unit schools. However, the TEI had a regional perspective and historial role of preservice education, which facilitated frequent training activities and two-way interaction with multi-unit schools. However, the TEI had a regional perspective and historial role of preservice education, which facilitated frequent training activities and two-way interaction with multi-unit schools. A

contextual factor possibly influencing the TEI's preservice education enrollments. Decreases in enrollments may have stimulated greater interest in comprehensive and systematic approaches toward inservice education. Comprehensive inservice education, carried out within the regional scope of the TEI, appeared to explain, in part, the frequent two-way interaction between TEIs and multi-unit schools.

A second unanticipated finding was centered on the linkage role of the TEI and the multi-unit schools. Student teachers from the TEI were frequently placed in multi-unit schools. This provided the schools with much needed manpower, and it provided the TEI with a legitimate reason for frequent visits to the schools. The unanticipated consequences associated with placing student teachers in a multi-unit school introduces three concepts: complementary resources, system autonomy, and intervention legitimacy. Student teachers were needed by multi-unit schools, and they were available from the TEI -- an example of complementary resources. Principals often tended to restrict entry into the school as one means for reducing potential stress and disruption -- an example of system autonomy. And staff from the TEI frequently needed to develop a non-threatening and acceptable means for entry in the school -- an example of intervention legitamacy.[28]

Descriptions of the various roles from different system perspectives revealed conflicting and/or misunderstood expectations. In addition, the values and attitudes of respondents toward other systems revealed, at time, deep-seated prejudice. With respect to inter-organization role conflict, the multi-unit schools expected the R & D center to provide frequent and extensive consulting and training programs, whereas the R & D center expected the multi-unit schools, once they had been introduced to the innovation, to initiate requests for workshops with the TEI, SEA, and/or other external resources.

A second example of conflict centered on the expectation by the SEA for extensive evaluations of the efficacy of the multi-unit design, which were to be conducted and disseminated either by the R & D center alone or in cooperation with the SEA. However, the R & D center , operating under reduced funding, had different priorities, namely, the development and extension of the curriculum components associated with the multi-unit school. Although evaluations are under way,[29] at the time of this study the SEA respondents had long been expecting the results or at least frequent status reports of the studies. The probing of respondents to expand on their reasons for either frequent, infrequent, or unsuccessful linkage, revealed an unanticipated finding, namely, the values and attitudes of

respondents toward other systems. These were most clearly illustrated by the user system. For example, a number of principals and teachers asserted that the R & D center was too theoretical, overly research oriented, and frequently impractical. A few respondents also claimed that the professors from the local teacher education institution had no experience, practical knowledge, or expertise to be involved with the operation of a multi-unit school. These attitudes toward research centers and teacher edcucation institutions have also been described by Baldridge et al.[30]

Structure

The internal factor of structure within each system was described in terms of coordination between work units, hierarchical communication, role specialization, and role clarity. The major findings, for the structure items are present in Table 2.

Table 2

Internal Factor of Structure as Reported by Resource, Mediating, and User Systems

System	Internal Coordination	Hierarchical Communication	Specialization	Role Clarity
Resource	Moderate	High	High	Low
Mediating				
SEA	Low	Moderate	Low	Moderate
TEI	High	High	High	Low
User	High	High	Moderate	High

As with diffusion and linkage findings, the structure findings are not generalizable, nor are they intended to be. Rather, the intent is to explore the viability of structure as a concept, first, for describing a diffusion program, and second for understanding a diffusion program.

The implementation unit of the R & D center described a moderate level of structure. For example, role specialization on the basis of specific implementation tasks was high, but planning meetings among staff involved with specialized functions were noted to be infrequent.

The SEA coordinators described a rather weak internal structure. For example, there was minimal integration of the multi-unit school diffusion effort with the wide range of SEA programs and activities, and role specialization was hampered by the multiple responsibilities of the state coordinators. They tended to be funded from a variety of sources, which in turn reflected a variety of program responsibilities.

The TEI respondents described a high level of structure. For example, a team approach toward consulting with and training multi-unit school staff was evident in two TEIs. This approach required considerable planning, communicating, and coordinating. However, facilitating the implementation of an innovation such as IGE/MUS was considered to be a new and evolving role. Concomitantly, the role was seen as vague and ambiguous.

Structure within the multi-unit school was entwined with the intrinsic characteristics of the innovation. High internal coordination, hierarchical communication, and role clarity reflected the organizational and administrative components of the multi-unit school. Consequently, the structure items for the user system were entangled with the measurement of the diffusion of IGE/MUS.

The concept of structure did provide a framework for describing one aspect of the internal characteristics within each system. However, relating structure to diffusion or linkage, while logically appealing, still remains to be done.

Capability

The internal factor of capability within each system was described in these terms: full-time equivalency devoted to multi-unit school activities; influence over decisions related to the multi-unit school program; needs related to the implementation of the multi-unit school; and past innovative performance. The major findings for the capability items are presented in table 3.

Table 3

Internal Factor of Capability as Reported by Resource, Mediating, and User Systems

	Capability				
System	F.T.E.	Skill/ Experience	Influence	Needs	Past Innovative Performance
Resource Mediating	Moderate	High	High	High	High
SEA	Moderate	Moderate	High	High	High
TEI	Moderate	Moderate	High	High	Moderate
User	Moderate	Moderate	High	Moderate	Low

The resource systems reported a high level of capability. For example, ability to fulfill the expectations associated with implementation, policy formulation, and internal coordination roles was reported as considerable. Time devoted purely to implementation functions ranged from 5 to 100 percent, which reflected the division of labor within the unit.

The SEA respondents reported a moderate level of capability. For example, the average F.T.E. devoted to diffusion activities was 58 percent. However, influence for affecting decisions regarding the statewide IGE/MUS program was reported to be high.

The TEI respondents reported a moderate level of capability. For example, 68 percent of their time was devoted to multi-unit school activities. This reflected the partial implementation status of most activities. This reflected the partial implementation status of most schools and the fact that various curriculum components of IGE were still in developmental stages. Working effectively with others was mentioned as an important and needed skill.

The user systems also reported moderate capability. For example, 61 percent of staff time was devoted to multi-unit school activities. This reflected the partial implementation status of most schools and the fact that various curriculum components of IGE were still in developmental stages. Working effectively with others was mentioned as an important and needed skill.

Unanticipated findings that emerged during interviewee descriptions of multi-unit school capability included the physical environment and teacher unions. Since the instructional and administrative design of individually guided education and the multi-unit school requires variable size student groupings and frequent staff cooperation and interaction, an open-space physical environment was described as a facilitating factor. Teacher unions were described as an inhibiting force affecting the implementation of the multi-unit school, teacher unions have an interest in the implementation of the innovation. Either implicitly, or explicitly, unions may exert considerable influence on the implementation procedures for the multi-unit school.

The concept of capability did provide a framework for describing one aspect of the internal characteristics within each systems. However, as with structure, the relationship between capability and diffusion or linkage is not specified. Although it is logically appealing to relate capability to other factors, such research remains to be done.

RECOMMENDATIONS FOR FUTURE RESEARCH

The descriptions of the diffusion of the multi-unit school formed the basis for the identification of methodological and conceptual issues. Measurement of the extent of implementation of complex innovations appears to require an explicit delineation of the intrinsic characteristics of the innovation and on-site observations to index actual practices. Through observational techniques it may be possible to distinguish between implementation according to prescribed guidelines, functional adaptation to increase effectiveness, and dysfunctional adaptation that dilutes potential effectiveness.

Conceptual issues were touched in terms of the roles of organizations involved in a joint effort to diffuse an innovation and in terms of the internal characteristics of such organizations. Descriptions of the linkage between organizations revealed the need for the following: studying the perceived complementarity of organizational roles; exploring attitudes between researches and practitioners; investigating the significance of intervention legitimacy; and incorporating the concepts of complementary resources and organizational autonomy.

Perceptions of the roles of the resource, mediating, and user systems may reveal conflicting expectations, misperceptions, and/or lack of communication. By explicating the multiple role perceptions it may be possible to contribute to a greater understanding of the difficulties involved with interorganizational cooperation and linkage. Attitudes of researchers, academics, and practitioners may be another fruitful area to explore in view of the assumption that these groups should interact and work together effectively. The concept of legitimacy may also contribute to an understanding of the factors involved when one or more organizations intervene in the operations of another organization. For example, precedents for frequent TEI and local school inservice programs may facilitate the diffusion of innovations that involve TEI faculty. The presence of or absence of complementary resources may also play an important role in facilitating or hindering interorganizational linkage. On the one hand, multi-unit schools that perceive needs being fulfilled by the TEI or another organization may be more likely to value and maintain a high level of interaction. On the other hand, teacher education institutions that perceive needs being fulfilled through involvement with local education agencies or other organizations may be more likely to enter into cooperative agreements for furnishing assistance. If the needs of the organizations are similar, then competition rather than cooperation is likely to arise.

Related to the influence of complementary needs is the concept of organizational autonomy. If organization, boundaries are highly protected from outside influence and if a norm of discouraging interdependency has been established within an organization, then inter-organizational programs may be perceived as threatening or harmful. The degree of, and need for, autonomy within individual schools or within a school district may have a direct bearing on the ease with which resource or mediating systems enter into joint ventures.

Descriptions of the structure and capability of the systems revealed a number of potentially fruitfull areas for future research. For example, the extent of integration of a change program within resource and mediating systems may influence the effectiveness of the program. The perception of a change program as temporary, deviating from established missions, or of low status, may reduce significantly the effectiveness of the administration of the change program. Concomitantly, coordination within the resource or mediating systems aimed at minimizing duplication and maximizing program integration and effectiveness may be an important factor for explaining differences between successful diffusion programs.

The physical environment of the user system and the intrinsic characteristics of the innovation may be another factor that deserves the attention of researchers. Successful adoption of an innovation may be facilitated by a certain type of physical environment. In addition to the possible effects of the physical environment, professional associations and/or labor unions may influence the extent of diffusion and adoption.

The objectives of describing the diffusion of an innovation through inter-organizational linkages from a heuristic perspective was achieved. The intent of the study, which is also a continuing research need, was to provide a basis for extending understanding of the diffusion and innovtion process. By understanding diffusion and implementation of innovations it may be possible to begin to address the shortcoming identified by Giacquinta, namely, the lack of explanations for why organizations vary in the degree and speed of change.[31]

NOTES

The author wishes to acknowledge the constructive comments and suggestions of Professors James M. Lipham, University of Wisconsin-Madison, and Professor Peter J. Cistone, Ontario Institute for Studies in Education, in connection with the research study reported here and in the preparation of this manuscript.

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Introducing Change Through Model Demonstration Programs: Giving Diffusion a Boost

Dr. Richard C. Harris

I would like to take this time, after such a filling and complete lunch, to try to keep you from dozing off - a sin that I have sometimes been guilty of when sitting in your seats - by sharing with you some of the learnings that have emerged as a result of several of our educational change programs at The NETWORK. I am particularly pleased about being with you - the developers of demonstration programs in the field of learning disabilities - because your projects represent not only model centers for the treatment of children with learning disabilities, but also models in another sense. Your programs are models of educational dissemination and diffusion efforts.

What I would like to discuss with you this afternoon is the process of educational change; more specifically, the process of diffusion of ideas from one educational site to another. My hope is that you will get some idea of the complexity of the process that you have undertaken, some concrete notions for what you can do in order to improve and upgrade your dissemination capacities, and a better understanding of why the teachers and administrators with whom you are working seem so resistant to change.

We have become preoccupied in the 20th Century with the change process, and although we can look back and note that every civilization has had its problems with change, and can assert that every civilization has had its downfall because of its failure to cope with certain aspects of the change process. What is different about the 20th Century is that not only are we aware of change, but we have come to the point where we can

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study ourselves in the process of change, thereby having a greater impact on the change process than ever before.

Some critics scoff at the complex technological and psychometric naval gazing that seems to be going on as we study ourselves in the process of change, but it is common knowledge that the use of instant replay makes for better football players, and it seems logical that if we could generalize this principle to our own behavior, we could become better football players ourselves - better teachers, better educators, better after lunch speakers. What we seem to be trying to do is catch up with the process of change that is going on so rapidly about us in order that we may take control of it again and influence the directions that our lives are taking. This catching up with the process of change in education is to me particularly important: clearly the institution of education is being attacked from all sides, but it is not clear to me that the key functions of education - those of helping students become better decision-makers, more knowledgeable, better citizens, to name a few - are being picked up with any responsibility or integrity by any other institutions or agencies within the culture.

I'd like to share with you four critical indicators that I have noticed that suggest to me that education is undergoing root shaking change, then show you how the field of learning disabilities acts as both a cause and a potential solution for many of these changes that are going on. You will know that I am nearing the end of my speech when I share with you three major models for helping change take place and give you some practical suggestions for how your projects can go on to become an important part of the solution to the kinds of problems that your schools and states are facing.

The first indicator which suggest that education is undergoing major change is the devaluing of traditional educational values. There was a program on television recently called "The Case Against College." Your parents wouldn't have let you watch that! There is a dramatic change in the value placed on education, and that program represented it for me.

The second indicator is that alternative educational sources besides school exist in profusion. Students spend 50% more time in front of television than in the classroom, for example. That source of stimulation, knowledge, and information, the models that are presented on television, are having a great impact on student values, attitudes, behavior and knowledge. Supposing we have a nutrition course in school and it is up against all of the cereal ads on a Saturday morning cartoon show. Which source of information is going to have a greater impact on the kind of

breakfast food the student prefers? The situation suggests to me that education does not have the same kind of impact on society that it used to have.

A third indicator is that there seems to be an extensive influence on American education coming from outside of American education. This phenomenon is consistent with revolutions that happen in any field. Jonas Salk was a biologist, not a doctor, yet his major contribution is in the field of medicine. There is a tendency for people who are inside to be too inbred to be able to make significant impact. The field of learning disabilities as a field has had its impetus from parents and legislators, not from educators. If the Russians hadn't launched Sputnik, how many high schools would have thought of "tracking" as a means of improving education? The whole emphasis in the 50's was not on tracking, it was in life adjustment. It was recognized, for example, in the early 50's that math education was devastating; that may text books were not only out of date, but based on the wrong concepts. Such knowledge had very little impact until the satellite went up, and then things changed. That's when pressure came from outside of education to change educational practices, and that's when money went to education.

The fourth indicator that education is undergoing profound - I called them "rootshaking" - changes is the almost overnight change in the mission of the educational system. The role of the educational system in the eyes of the American public is changing. The idea that education is a filtering mechanism that will find the best and bring them up to the top is no longer palatable to an American public that is trying to get the most that it can for its educational dollar. Ten years ago if the student didn't learn, the student failed; today, if the student doesn't learn, the school fails. As many of you are well aware, many teachers are having trouble coming to grips with taking responsibility for student failures. The point I am trying to make is not that the change has taken place in education; but rather that the change is in process.

Why is it, then, given the massive changes being undertaken by American education and foisted upon American education, and given the obvious solution which the field of learning disabilities provides to many of the problems in education, that it is so difficult for us to be heard by our colleagues? The answer is relatively simple and was observed by Thomas Jefferson 200 years ago in the Declaration of Independence: people would rather stay in a bad situation that they know about than risk changing and getting into a situation that they don't know about, even if it might be better. Given that, the challenge

for us at the NETWORK and for you in your projects is not to try to answer the question: "why won't people change"? but rather "how can we help people change"?

Those of us who have been working in the field of knowledge production and knowledge utilization have seen three major models emerge: the extension agent model, the think tank model, and the demonstration site model. Let's take each of them in order.

THE EXTENSION AGENT MODEL - if only they knew more, they would do better.

One of the sources of a model for educational change has been agriculture. A hundred years ago, with the development of land grant institutions, we began to find out that we didn't have to continue to plant the same way we had always planted, plough the same way we had always ploughed; in fact some of these things were causing a decrease in production.

The way change is fostered in agriculture is by getting a person in the middle - between the researchers and the farmers - called the extension agent. The extension agent relates to both groups and the more effectively that agent can relate, the better the results.

Research began to be developed in the late 30's on characteristics of the effective agricultural extension agent. An effective extension agent was one who didn't appear like a city slicker, who was "one of us," but who was sufficiently different from one of us so that we would respect whatever he said. Another characteristic of the effective extension agent was called "marginality" - being not quite inside and not quite outside. Perhaps the extension agent had a garden plot, but he wasn't a full-time farmer; knew farming well enough to be able to relate, but wasn't so involved that farmers would think he was somebody trying to tell them to do things his way.

In education, we have tried to take that extension agent model and in certain states develop what are being called linking agencies. There is a recent study which was piloted in Oregon, Utah, and North Carolina in which extension agents - real people - were given informtion from the ERIC system and sent out to administrators to try to get the administrators and the teachers in these states to use the information more effectively. It was an attempt to take the model of the agricultural extension agent and move it into education to promote educational change.

THE THINK TANK MODEL - if only we developed better materials, they would teach better.

Across the country a number of Research and Development Laboratories and Centers have received funds to develop new educational programs for students. Programs in social studies, science, aesthetic education, reading, and many other subjects were developed by curriculum development teams and field tested to insure their reliability. By and large the materials were quite good. By and large the materials are still on the shelf. In the coming thirty months, the National Institute of Education will spend over seven million dollars to help get these curriculum products off the shelf and into the hands of teachers. The think tanks got materials developed, but had insufficient mechanisms to get them used.

THE DEMONSTRATION CENTER MODEL - if only we could have them see what others are doing that is better, they would do better.

A third approach that has been tried to support change is that of developing demonstration centers. This approach is relatively simple to understand and agree with until you realize that if you believe that this approach works, you also must believe that innovation is more like a disease than a cure for a disease. Innovative behavior rarely rubs off on people who don't want it, the way the flu does.

In spite of all the federal, state and local money that has been spent on extension agents, research and development and demonstration sites, who has the most impact on the day-to-day instruction of children? The extension agent with access to so much knowledge? The developer with field tested learning products? The people such as yourselves who work (overwork) in demonstration centers?

No. The people with the most influence in education today are the text book salespeople - people who know less about education than you do; people who may never have been inside a classroom; people who know nothing about reading, but who are pushing bicentennial reading programs this year because there is a good market for it. Rather than lament such a travesty, however, I think we should take a lesson from it. The text book salesman represents the one human contact that many teachers and administrators have with education beyond their system.

And the textbook salesman knows it. He builds clientele; he makes notes about how many children the principal has, which

teacher broke her arm in a skiing accident, who drives a car just like his. Imagine how important you would feel if your only contact with the world beyond a fifty mile radius asked you how the broken arm that you had forgotten had been broken, had healed. I don't mean to imply that we should be seducing our clients into improving their teaching. I'm saying that we need to consider how we can let those people whom we are trying to change know that we think that they are people with arms (and legs and feelings) before we ask them to consider (no matter how subtly) that much of their teaching methods for the past ten (fifteen? twenty?) years has been off the mark.

And you can do this. You can have your extension agent-type person making contact with your immediate clients whether they be teachers with the system where your projects currently are located or decision makers in future client systems; you can design personalized inservice training; you can have your staff or resource teachers doing follow-up work. But lest we think it is even that simple, let me bring in another reality.

The teachers you are trying to change are in schools, and schools are bureaucracies. Some of the most recent research on schools as bureaucracies shows that they are self-serving - if you expend your budget this year, you will be able to get it next year. Independent of the good intentions of people and their individual commitments to students, the school bureaucracy is not set up to take the type of risks you may feel are necessary. The organizational structure of schools is something we have to work with in planning for change. In order to achieve greater effectiveness with children, the organization also has to be changed. Here's where the extension agent in agriculture has it made.

When you are working with a farmer, and you say to the farmer, "if you plant this corn rather than the corn you are planting, you will get a 50% increase in yield," the farmer will think it might be worth the risk. Some farmers won't do it - they are called the laggards in the diffusion business. They won't do it regardless of the research and development knowledge that's behind it, regardless of how much they like the extension agent. There is also a group of people who would try it if only they knew it existed, and they are called the early adopters. Early adopter farmers are always out there trying to seek new information and using it constantly. Some place after the early adopters, there is a classification called early majority. They look around, see how their early adopter friends are making out, and then usually buy in relatively quickly.

Now, when we talk about farming, we are talking about people who are fairly autonomous, who can make decision on their own, and who have a fairly clear notion of whether it's going to pay-off or not.

In education, we are talking about unclear pay-offs in schools with standard operating procedures and norms that sometimes don't allow for new things to happen. Schools as organizations are different from farmers as individuals. Decisions can't be made as autonomously and there is a tendency for people not to want to make decisions.

As you have discovered, it's a whole lot more complex than scheduling visits, selecting training sites, planning teacher training, and planning follow-up visits. It means becoming a linker, going out their, making the contacts with local schools, establishing credibility and letting them know you can be of help, helping the school change as an organization so that the teachers in it will feel more comfortable changing as individuals.

I hope that through these remarks I have been able to communicate to you that I think the work that you are doing is important, exceedingly complex, and at the same time ultimately do-able. The work that you are doing has impact beyond your projects and is part of a much larger process of educational change in America that is affecting the very roots of our educational system.

February 23, 1976
San Diego, California

The Organizational Dilemma of Educational Change Models: Toward a Solution

Sam D. Sieber

A persistent dilemma confronts us in the so-called change models of education. Although this dilemma is implicit in almost every current statement about the handling of the diffusion and implementation process, it seems to escape detection regularly. The dilemma is posed by an existentialist conception of the educator (sometimes referred to as a "user orientation"), on the one hand, and a bureaucratic conception of how to go about reaching and influencing the educator, on the other.

The existentialist image of school personnel stresses the role of personal values, goals, and needs of the individual in the unique setting of each. In a paper that outlines a comprehensive problem-solving model, Bargar (1975) made an assessment that is enjoying wide currency in the field today.

"Each within his or her own sphere is faced with a given range of problems; teachers are key decision makers for what actually happens in classrooms. What they perceive, what they value, what they decide and how they act are critical. Development in the classroom thus requires development in the teacher. . .innovations will be employed successfully only when related realistically to the awareness of teachers of their objectives and needs."(p.3)

Thus, it is widely claimed that only if the local capacity for

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problem-solving is enhanced will individuals, groups, or organizations be motivated and able to engage in educational reform. (For some writings that reflect this viewpoint, see Fullan, 1972; Havelock and Havelock, 1973; National Institute of Education, 1975; Schmuck and Miles, 1971.)

In sharp contrast to this outlook, although often found allied with it in the writings of change strategists, is the bureaucratic perspective. This perspective views the practitioner as needing, and ultimately responding to, a restructuring of roles and agencies. Current models of change depict this new structure as consisting of formal linkages to resources, information, and technical assistance; training programs in problem-solving, communication, decision-making, information retrieval and a host of other skills; task forces and committees for the planning, management, and coordination of dissemination networks; and scheduling and budgeting of local change processes.

Even the new problem-solving models being developed to foster local group capacities for planning and implementing change, which claim to be highly user-oriented and flexible in approach, suffer from some of the same problems as the more bureaucratic R&D schemes that have increasingly fallen into disfavor (e.g., see Guba and Clark, 1974). A recent description of a problem-solving model by Bargar (1975) is typical of the latent conflict between ideology and structure just referred to.

"It would be a mistake to think of the problem-solving support system in a highly structured sense. . . the support system would need to be thought of as a loose federation of available resources and capabilities. . .its major components could well consist of a facilitator or facilitators whose responsibilities are to articulate a variety of resources both from within the building and external to the building in relationship to client problems."(p.10)

But when we proceed to the realm of building the support system, we encounter "training in the evaluation and utilization of knowledge," "some minimal system for storage, retrieval, and communication" in each school, "availablity of statistical analysis as problem solving efforts begin to reach field test or evaluation states," and facilitators who will engage in "team building," "technical linkage," "coordination of special arrangements that might be necessary in scheduling, equipment, etc," "coordination in the obtaining of additional resources, both financial and personnel," and "conducting a program in building-wide staff development." In short, a new structure, school-wide, is added to existing administrative arrangements.

The Bargar model is by no means an isolated example of the

emphasis on local managerial tactics of the problem-solving advocates. The program plan of the Group on School Capacity for Problem Solving, National Institute of Education (1975), also professed an interest in serving the individual needs of school personnel. Thus, the plan noted that "from the perspective of the teacher, for example, in-service programs are conceived and passed down by an unknown body 'down-town', for purposes unrelated to the teacher's own needs, and conducted by people who do not understand his real problems and therefore can provide little genuine help"(p.3). The plan then summed up a discussion of several projects:

"Among the organizational strategies and techniques for problem solving being used in the projects we have just described are teachers' centers, a range of school governance mechanisms, better devices for collaborative decision-making, organizational development techniques, different planning and evaluation systems as well as a range of techniques for delivering and using technical assistance."(p.17)

The question that now arises is, what becomes of educators with their individual problems, values, and goals in the midst of all these organizational practices and role definitions? In my opinion, they will often be coopted, type-cast, or simply ignored. For it would seem to be quite difficult to establish schedules, teams, training programs, governance mechanisms, and routinized linkages that preserve the phenomenological integrity of individuals and answer their needs in a way that engages commitment and contributes to personal growth. Of the sheer number of needs to be found in any one school, not even a miniscule proportion can be dealt with by means of a local organizational mechanism.[1] To determine which needs will be considered, therefore, it becomes necessary to establish criteria and priorities. In practice, then, one or a few problems will be picked, those that the structure is best equipped to handle. This procedure obviously runs counter to the idea of giving individual attention to needs, tailoring solutions to the problems of a significant number of educators, and helping practitioners to develop the personal capacity for coping better in the future.

Needs and problems also differ greatly in nature, urgency, scope, complexity, and so forth. Some require resource teams and some don't; some require diagnosis and some don't; some require facilitators and some don't; some require R&D and some don't. None of the existing change models that advocate these practices takes sufficiently into account the great variation in individual needs, and the numerous conditions that dictate one or another type of intervention. Thus, it is sometimes implied that all of these approaches will be brought to bear on every problem. For example, we read about problem-solving entering

the field test and evaluation stages, as if more than a tiny part of the assistance really needed by individual practitioners ever achieved this scale of development or required systematic inquiry to determine its usefulness.

What these schemes overlook is that the function of organizational structures is to apply general rules (or treatment) to particular cases. And because of recurrent pressures for greater efficiency -- as a result of demands for accountability, limited resources, the need to relate to other organizations, or to compete with other, more efficient agencies -- even those structures that are designed to serve a variety of idiosyncratic needs are tempted to routinize their services or to specialize in certain types of cases. Thus, the broader the categories of need the organization addresses, the more successful it is in terms of efficiency. Moreover, the entrenchment of local R&D groups or problem-solving structures in the bureaucracy of the school system exerts almost irresistible pressure to succumb to the temptations of routinization. Consequently, what sets out to be a highly flexible apparatus dealing with non-uniform needs winds up as a mini-bureaucracy, reasserting control over colleagues and dispensing services to typical cases. In the final analysis, the structure, not the client, dictates what services are provided; the latter must either adjust the needs to the structure or withdraw. The fate of alternative schools, which originated in a desire to provide students with highly individualized service within an egalitarian climate, is eloquent testimony to the powers of routinization even in the human relations type of structure. (A project under the direction of Matthew Miles, Center for Policy Research, is curretly looking into this problem-e.g., see Miles, 1976b).

Perhaps more to the point is the persistent difficulty of institutionalizing OD (organization-development training) in schools. As Miles (1976a,p.243) stated in a review of some recent research:

"If we accept these findings, we must face the fact that diffusing OD in schools more widely will require initial (and probably continuing) expenditures of energy and time beyond the level most schools presently allot for in-service training; investing less than this tends to be counter-productive (not just inefficacious)."

The reason for this prognostication apparently lies not in the OD system itself, which is highly reflexive and adaptive, but in what Miles calls "the innovation-retardant properties of schools." And as regards locally based facilitators, one wonders how they will avoid the fate of numerous predecessors, known some years ago as C&I (curriculum and instruction)

administrators, who were quickly burdened with a host of routine administrative tasks.[2]

Apart from these general organizational tendencies, there seems to be a special source of routinization in educational change models: the assumption that in an innovative process a particular sequence of events occurs. This idea leads to strategies that facilitate movement from one stage to the next, strategies that are incorporated into local structures. Whether this sequence involves Bargar's (1975) route from problem analysis to maintaining and reviewing, or the more famous stages of Havelock (1969) or Rogers (1962), there is the belief that people proceed from one stage to another in a more or less orderly fashion. This linear assumption is difficult to accept. In the first place, these schemes exhibit a rationalistic bias in so far as they are based either on exposure to professional knowledge or an awaremess of a problem in one's current practices as the initial event. As Havelock (1969, ch.10, p.29) noted with regard to the "problem solver perspective":

"(An individual or group) initiates the process of change by identifying an area of concern or by sensing a need for change. Once the problem area is identified, the receiver undertakes to alter the situation either through his own efforts, or by recruiting suitable outside assistance."[3]

The tradition of diffusion research, however, maintains that the adopter is essentially passive, being motivated to take action only when exposed to new ideas or practices: in short, the need is created by awareness of external information. Both of these interpretations of the origins of change efforts overlook a whole realm of symbolic or non-task oriented motives for innovation. Often new practices are adopted because of their local publicity value: installing a highly popular practice, even if it is of doubtful merit and entails considerable expense (e.g., educational television), reduces vulnerability to local critics. (On this point, see Nelson and Sieber, 1976.) Legitimation of professional autonomy is another function of innovations, especially those involving a good deal of esoteric professional jargon. Similarly, many individuals and groups undoubtedly seek to enhance their status in the organization by introducing new programs that use their particular skills and that bring visibility and a certain amount of control over other staff members. This might be called the status-enhancement function of innovation.

In short, there are several very good reasons for initiating change that do not originate in dissatisfaction with the effectiveness of current practices or with awareness of better practices elsewhere.[4] With respect to the use of new

information in particular, one often finds that a solution has been adopted prior to any search for, or random exposure to, external information or assistance, the user wishing only to legitimate the solution in the eyes of peers and constituencies. All linear schemes that emphasize the rational, professional motivations of clients -- whether as a result of felt needs or of awareness of new practices -- as the starting point for organizational change overlook these common motives for innovation. Consequently, change models geared to such sequences are unable to comprehend the social and psychological incentives for change and the energies that these generate; and most important, to redirect these energies toward effective and needed reform. Indeed, the structures erected on the basis of this overrationalized approach might well be exploited for purposes that are not only irrelevant, but inimical to enlightened professional behavior.

For example, take the problem-solving structures that are often advocated on the local level. It would not be surprising if some individuals felt that their needs and inclinations were submerged in the group's efforts at problem analysis, while others used the group to advance their own interests or for sheer status-aggrandizement. Thus, staff members with special skills in organization development or group dynamics may promote themselves to positions of prominence in the system, regardless of their contribution to the educational program.[5] Again, problem-solving groups with a great deal of participatory decision-making might develop consensus and esprit de corps at the expense of intellectual debate that threatens internal conflict; or they might develop a sense of self-sufficiency at the expense of using outside expertise or of consulting with the community, the school board, the state education agency, and so forth, on major plans for change. And, finally, there is the possibility of such groups gaining so much control over R&D products and systems that they reshape them out of existence in order to avert any threat to their established practices. Clearly, local problem-solving structures might cater to certain social, political, and personal interests that are detrimental to genuine reform. (For some anecdotal evidence of these processes, see Sieber, 1976.) Espousal of a rationalized problem-solving strategy might well serve as legitimative ideology for a process that is essentially political and self-serving.

While my first criticism of the linear model is of its rationalistic bias, my second, paradoxically, is that it is not rational enough. On those occasions when educators are in fact motivated by disinterested, professional goals, their most "rational" procedure is not to move in lockstep from one stage to another of an innovative effort, but to <u>continually reiterate</u> each step as time passes: to remain alert to new information,

reconsider their initial problem analysis as events unfold, backtrack from implementation efforts when they hit a snag, tentatively try out a solution before all the evidence is marshaled, prevent premature institutionalization by constant reevaluation, and so forth. In other words, a perpetual interplay between action and knowledge, and between different types of action (adoption, implementation, field trial, etc.), is more rational, it would seem, than is following a single linear process for each change effort from start to finish.[6] Thus, the sequence advocated by certain change models might actually impose restrictions on rational behavior directed toward disinterested, professional goals.

Current tendencies in contemporary strategies of educational change might not only fail to meet the needs of individual school personnel, but ultimately foster resentment and widespread skepticism about the ability of the experts to grasp their situation. Model-builders in the dissemination and implementation field consistently overlook the fact that teachers have a number of tasks that have little to do with educational practice, such as keeping parents at bay, appeasing the clerks in the central office, working in teachers' associations or unions on bread-and-butter issues, managing the traffic in a classroom or school building, or acquiring resources like chalk, chairs, baseballs, and art supplies. These concerns are as much a part of teachers' world as are their instructional values and goals. It therfore seems fruitless to erect a structure to promote innovation on the basis of a classroom function that is but one of a wide repertiore of competing functions, or to expect teachers to participate wholeheartedly in such a structure. (The same point, incidentally, can be made about professors and state agency personnel who are supposed to function as resource teams or technical assistance personnel in schools.) In short, educational personnel are quasi-professionals; they have much more on their minds than professional classroom performance and curriculum development. This situation suggests that any structure that adds to teachers' existing organizational duties, including even the duty to participate in solving their own problems in meetings with their peers, will fare poorly even if implemented. What school personnel want is less to do, not more.[7]

The kind of planning or modeling just discussed might be characterized as abstract structuralism, a style of thinking that has been rampant in professional education for years. In my estimation, such models have three shortcomings: (1) they are subject to routinization of services; (2) they are vulnerable to exploitation for non-professional purposes; and (3) they impose additional burdens on school personnel, which lead to resentment and ultimate rejection.

Conceivably, what is required is an arrangement so flexible in adapting to needs and to individuals that it is virtually invisible-which means an arrangement based not on concern for coordination, structured participation, long-range sequences of action, or accountability, but on personal, case by case adaptation to the needs expressed by individual clients. To draw an analogy to the private medical practitioner is tempting, but would be very misleading. Patients voluntarily go the doctors for help; the problem is often obvious and pressing; the patient is highly motivated to solve the problem; timeconsuming diagnosis is tolerated and even desired when the cause is not obvious; the doctor's expertise is revered; the patient role is not embedded in an organization; the patient is a lay person being treated by a professional; and the results of treatment are readily discerned. That none of these features applies to the relationship between specialists and educators is why the diagnostic role of medical practice does not work in education.

Nevertheless, it seems worthwhile to ask if the one-to-one paradigm of individual treatment cannot be approximated in education. At the same time, we need to admit that organizational mechanisms cannot be dispensed with altogether. The limited number of experts who are qualified to advise and assist school personnel, the enormous amount and bewildering variety of educational resources, the scale of the client system, and the need for stability of intervention systems all require some coordination and supervision. The problem, then, is to find an organizational mechanism whereby individual treatment can be given without succumbing to pressures for efficiency or exploitation of the structure by local participants. A solution that seems promising is the dispersed organization.

Virtually all the models of organizational development are based on concentrated organizations, i.e., organizations that are geographically unified. In such organizations there is high visibility of performance, strong identification with the organization on the part of middle- and upper-level functionaries, the possibility of using one's organizational status for self-aggrandizement, and, finally, in the case of client-serving organizations, a passive stance in relation to clientele (who must identify and locate the organization, gain access to its services, and comply with requirements for continuing support). In contrast, in the dispersed organization, personnel are scattered geographically. Police, itinerant salesmen, county agricultural agents, forest rangers, and social case workers are examples of dispersed personnel. Under these circumstances there is relatively low visibility of performance, which means that unless the job is quite routine (meter-reading) or governed by self-interest (door-to-door selling), there must be a strong emphasis on commitment to

organizational goals through training and other means (e.g., the forest sevice).[8] With respect to personal service organizations, dispersion also means that the organization is no longer passive, but actively seeks clients to whom it can render services. (Indeed, the number of clients it has is regarded as one measure of success.) Further, because of deemphasis on daily supervision and routine accountability, as well as lesser identification with the organization's status system, dispersed service personnel are less prone to apply set criteria, regulations, or solutions to the cases they deal with. This factor injects an element of extreme adaptability to clients, approximating the clinical model of the doctor-patient relationship. In sum, many of the problems that arise from fostering local structures for serving individual needs are circumvented by this type of organization. What emerges, then, is a true contingency model of education change.[9]

When this model is applied to a clientele as large and differentiated as educational personnel, however, a special problem arises -- putting enough experts into the field to serve a substantial portion of educators. Fortunately, education in America is singularly equipped to cope with this problem, for it boasts one of the largest accession, storage, and retrieval systems in the world-the Educational Resources Information Center (ERIC). Consequently, it becomes feasible to put agents into the field who, although themselves not substantive experts, are able to acquire expert resources in a few days from the many computerized retrieval systems being developed all over the nation. Thus, personnel of a dispersed organization for educational change are able to act as extension agents rather than consultants (although, as we see, the latter role might also be assumed on occasion). This provision makes it possible to recruit and train enough field agents to implement on a full-time basis the contingency model of a dispersed organization.[10]

This general model, incidentally, has an impressive precedent in the agricultural extension system. Indeed, in 1964 Rogers and Eichholz suggested that one of the reasons for the slow rate of change in education was the lack of a change agent similar to the agricultural extension agent. And in the proceedings of a conference on educational change in 1965 (Center for the Advanced Study of Educational Administration, 1965), three of five papers referred to the need in education for something resembling the agricultural program. In the following year, Jung and Lippitt (1966) proposed a linker role between experts and clients, again with the agricultural system in mind.

This model was applied to education in 1970-72 on a pilot basis and extensively evaluated. (We therefore need not depend solely on theoretical considerations or historical precedents in other

fields to assess the value of the dispersed organization as applied to educational needs.) Since this trial was conducted on a scale large enough that conclusions could be drawn for the nation as a whole, it deserves to be described here in some detail. Indeed, because of the wide geographical variation within the areas studied, we suspect that the model of the dispersed organization could be effectively applied to most areas of the nation and even to other nations.

The Education Extension Agent Program[11]

Two extension agents in each of two states and three agents in a third state were employed full time to visit schools within specified target areas and to help clients identify and articulate their needs. The agents referred each need or request to a retrieval staff, located in the state education agency, who performed computer or manual searches of ERIC, CIJE (Current Index to Journals in Education), and other more standard resources. In addition, in many cases the agents supplied the clients with materials from their own offices, which were located in intermediate service centers. Information was provided in the form of abstracts, microfiche, bibliographies, hard copy, or even technical assistance from the state agencies. When appropriate, the agents also helped clients to interpret or adapt the information, to assist in appraising its applicability, to consider the steps needed for its application, and then to repeat the whole process when needs were better defined or shifted to other areas of interest. Note, however, that these tasks were to be performed only when required by the specific situation or client, and only when totally acceptable. In short, the extension agents were functioning as free floating, full-time generalists -- an entirely new role in education change, which circumvents most of the barriers created by state and local structures.

The target areas within the states varied in nature and scope. In one state they consisted of two counties, one rural and one a mixture of rural and urban; in another state, of three regions, all rural; and in the third state, of two school districts, one small town suburban and the other highly urbanized. One agent was assigned to each target area, making a total of seven agents. There was a project director in each state, and from one to seven full-time retrieval personnel at the state level. One of the states used its own facility for computerized search of ERIC, while the other two used a regional installation.

The retrieval service was also made available to educators who were not in the target areas served by the extension agents, giving the researchers the opportunity to compare the outcomes of the agents' work with that of educators acting on their own. Further, the participation of consultants from the state agency

and elsewhere made it possible to compare the effect of these subject-matter specialists with that of the extension agents. The program's success was considerable.[12]

With regard to coverage of the service, the extension agents stimulated a much larger percentage of requests among educators than originated in areas without agents but where the availability of the state's retrieval service was well publicized. The proportion of educational personnel in the seven target areas serviced by the agents in a five-month period ranged from 1.6% in the urbanized area to 13.5% in one of the rural areas. (The mean percentage for the seven areas was 8.6%.) In contrast, during the same period only .004% to .006% in the non-target areas to which the retrieval service had been offered requested information. Clearly, the agents were valuable as disseminators at least. On the average, each agent handled the requests of 13 clients per month; and the great majority of clients claimed that the information had been helpful to others with whom it was shared.

Further, those agents with teaching backgrounds generated a much larger proportion of requests from teachers than occurred when no agent was available. In one state, 79% of the clients of the agent who had been a teacher were themselves teachers, compared with 22% of the non-target clients (almost half of the latter were district level specialists and administrators). In another state, the respective figures were 58% for one agent who was a former teacher vs 33% of the non-target clients. In short, an educational information service that omits the role of the extension agent reaches only a tiny proportion of school personnel, those found mainly at the district level. Obviously, the ERIC system and other resources do not reach the classroom teacher without the intermediary of extension agents with teaching backgrounds.

With regard to impact of the service, both subjective and objective measures were employed. First, the subjective data: about three-fourths of the clients stated that the information had been very or moderately useful; and the clients of field agents were more often satisfied than were other clients. Thirty-four percent of the agents' clients called the information "very useful," compared with 19% of other clients. When asked about the value of any personal assistance that was rendered, 66% of the agents' clients said that it was "very useful," compared with 48% of the clients who had been helped by others, such as subject-matter specialists. Further, in only one of the states did the data suggest that a combination of an agent and a consultant was considered more beneficial than an agent working alone, i.e., without the back-up of subject-matter experts. In short, extension agents with or without the backup of experts were more frequently viewed as helpful than were

experts by themselves. In light of these data, it is not surprising that the agents were rated quite highly on a list of nine traits or activities. Mean ratings of "excellent" on a five-point scale across all nine characteristics varied from 40% to 67% for each of six agents, the one exception being a recent replacement for an earlier agent.

Now the objective data: in reply to an open-end question concerning the actual use to which the information had been put, 37% to 47% of the clients in the three states demonstrated some form of real implementation. In reply to a check-list question about actual use, half mentioned that it had given them new resources for helping other staff members, and more than a quarter said that it had helped with an administrative problem. The development of instructional packages was claimed to have been a specific benefit by a fifth of the clients. And, once again, it was the clients of the extension agents who more often implemented the information. According to an Index of Utilization, which combined the responses to the open-end and check-list questions, 48% of the agents' clients demonstrated actual use compared with 38% of all other clients. When one recalls that the agents usually solicited clients while all other clients were self-selected, it becomes obvious that the impact of the agents on the clients' use of information was greater than these statistics would indicate. And not only were the agents' clients less often self-starters, they were lower in the school hierarchy and therefore less accustomed to planning or implementing practices on the basis of research or other national expertise. This conclusion is supported by the agents' clients actually having had more difficulty understanding or using the information. (Problems with the information included relevance, specificity, comprehensiveness, complexity, and difficulty of implementation.) In sum, the agents better overcame the handicaps of their solicited clientele, and gained greater implementation, than did more qualified clients who requested information on their own. Further, among the clients of the agents, it was precisely those who had difficulties with the information (about three-fourths of the agents' clients) who tended to benefit more from interaction with the agent. Among those without problems, the correlaton between length of time spent with the agent and implementation was only .07 (Kendall's Tau). Among those with problems, however, it was.21. Clearly, the agents functioned as necessary adjuncts to the delivery of complex resources.

The utility of the information was not confined to the original requester. Large majorities in all three states said that they had discussed it with other staff members, and about half claimed that they had given or loaned the material to others. Further, the great majority said they had recommended the service to their peers. The service had a large "ripple

effect," then, beyond the primary clients; and the information reached groups as well as isolated individuals. But despite the great amount of sharing that took place, it was the agent who emerged as the most useful discussant, as shown by the frequency of mentions received by the agent when the clients were asked, "Of all the persons with whom you talked about your need or problem whom did you find most helpful?" The majority of clients in all target areas mentioned the agent, while only tiny proportions mentioned any other single position.

Final statistical evidence of the program's success is reflected in widespread intentions to use the service again. Across all target and non-target areas, 78% to 90% of the clients stated such an intention. Clearly, the projects stimulated widespread demand for new knowledge about educational practices in these predominantly rural areas, although equal interest was evinced in the urban areas.

In addition to statistical evidence of impact, a number of case studies demonstrated the success of the agents' efforts in some detail. Reading programs, instructional resource centers, guidance classes, athletics, library service, curriculum development -- all profited from the resources of the extension and retrieval personnel.[13] (The report contains about 300 pages of case studies.)

Before offering explanations for the apparent success of the program let me confess some weaknesses of the evaluation. First, our measure of use was rather short-term: there was no opportunity for follow-up to discern whether or not institutionalization of either innovation or information-seeking behavior occurred. Second, the measure was based on the reports of clients in a questionnaire rather than on a sample of firsthand observations. (As mentioned, however, the case studies as well as random observations by field observers tended to validate the survey findings.) Third, the typical zeal of the program staff in inaugurating a new program may have introduced a certain degree of artificiality and built-in success to the program. (However, our research clearly shows that the program worked better after much of the initial zeal had abated and problems been squarely faced.) Fourth, we focused on the role development of the staff members rather than on the properties of clients and their settings. Finally, our evaluation was formative as well as summative, i.e., we ourselves intervened in the process. (However, several safeguards against contamination of the findings were adopted, as discussed in an appendix of the report; also, we recommend that certain of our interventions, such as the field-observers, be built into future extension programs to facilitate communication contact with universities, and so on.)

Now let us return to the theme of organizational flexibility, which, I believe, accounts for the apparent success of this program. To a very large extent, the realities of education -- its needs, its structure, its norms -- guaranteed that the program maintained a posture of extreme adaptability to clients. However, an essential condition for responsiveness to these realities was the dispersed nature of the organization.[14]

Few of the initial conceptions of how the agents were to perform their unprecedented role were borne out in practice. In one state, for example, the two agents were originally expected to implement a "management by objectives" program by focusing on helping clients achieve nine state objectives. This expectation was completely abandoned within a year. As one superintendent flatly stated, "Those are the State Department's goals. We didn't participate at all in drawing those up." In contrast to this top-down strategy, another state expected its agents to "diagnose the problems" of educators, and in general to follow the problem-solving model advocated by Havelock (1969) from start to finish. But this goal also turned out to be utopian. Many clients were unwilling to undergo diagnosis, many had a specific need that did not require diagnosis, others had a deadline to meet and could not afford the time for diagnosis, and most resented the implication that they had problems in the first place. One agent spent several months trying to conduct a needs assessment, an exercise that led only to his expulsion from the district. As we stated in the report:

"Most of (the field agents) agreed that unless the client himself was enthusiastic about engaging in an extended study of the problems that faced him, there was little to be gained from overt attempts to change the client's approach to the situation. Indeed, the state that originally placed the greatest emphasis on locating the root problem of clients later moved to a much more flexible view which takes into consideration such factors as variations in the needs of different clients and in their acceptance of diagnostic efforts." (p.85)

In still another case an agent felt that he could best serve administrators, since he himself had been an administrator and had taught in a teacher-training institution. As it turned out, however, he was more successful with teachers, and managed to alienate several superintendents, who resented his posing as an expert. In fact, although all of the agents naturally drifted toward clients who occupied the positions they themselves had formerly held, they tended to have greater impact with other clients. This result raises some questions about the desirability of specialization in dealing with clients according to common training and experience.

A typical bureaucratic perspective also prompted the agents to

seek entree to schools and to present the program through formal meetings. While this procedure created a certain minimal awareness of the service, it was soon discovered that restrictions on two-way communication, the reluctance of educators to mention their problems or needs on the presence of peers, and their overexposure to new programs, projects, and practices in such meetings all conspired to defeat these initial efforts. Later on, small informal groups and personal solicitation under informal conditions (e.g., in the faculty rooms or local coffee shop) proved to be far more effective. In short, the formal, structured approach to discussing needs failed to have any impact, and in several cases only raised resentment.

Again, in all three states it was assumed that the technical assistance rendered by consultants from the state agency, intermediate service centers, or local districts would be especially effective and valued by clients. But as it turned out, according to our statistical analysis, the extension agents were equally appreciated and equally successful in achieving implementation. And with respect to state consultants in particular, the extension agents served more than 10 times as many clients as did these experts. Although the consultants were viewed as substantive experts, the results of meetings with them were often quite unsatisfactory. One client commented that diagnostic periods had been unproductive because the consultants had been unable to tell the group anything new; another stated that he felt the consultant team had been trying to give them a "hard sell"; and, in another case, an extension agent commented that the consultant had lots of nice theoretical ideas, but few practical suggestions of relevance. As well, the problems of scheduling consultants and paying those from the university were insoluble. As one client observed,"The main drawback with using state people is that when they are asked to come into the district they have to fit your request into their schedules, so that they may finally show up after the whole issue prompting you to call them has blown over." This client then went on to pinpoint one of the major advantages of the free-floating, full-time generalist, "On the other hand, (the extension agent) is close to the problem, he can identify them more easily . . . and he responds to problems generally more quickly."

Certain bureaucratic features could not be totally avoided, however. The division of labor between extension agent and retrieval personnel was one of these, and this feature gave rise to a number of problems. The job of accurately communicating the client's need to the retrieval staff emerged as one of the toughest of all; and in a large minority of cases, the information delivered to clients was viewed as "not relevant to my problem or need." One can only speculate about the magnitude of this problem when more individuals, teams, and communication

channels are added, as proposed in current models of change that depend on a much more complex division of labor. Indeed, one of the three states that we evaluated introduced an elaborate division of labor within the retrieval component. Consequently, turnaround time for delivery of information was almost twice as long as in the other two states, but without an equivalent increment in the clients' satisfaction or use of the information.

Another way in which structuring of the extension agent's role was attempted was through a special training program conducted by an independent contractor. Fortunately, two approaches were tried: a series of formal training sessions in a central location, and a series of informal encounters with agents during site visits of the training team. On the whole, the agents preferred the informal approach. As one of them put it, "Basically, the trainers listened to me, then tried to offer the kind of help, information, or suggestions that were most appropriate . . .I'd have to take the on-site visit over the group meeting as most valluable to me." In short, they valued clinical advice more highly than formal training. Another felt that the most important lesson of training had been the importance of learning by trial and error, an ironic commentary on training programs: "I picked up the point that we should try for different solutions to problems-since we are a pilot project, it's good for us to try all sorts of solutions and methods, and pick those which work best for a given set of circumstances." In short, even a training program was perceived as unrealistic when applied to the actual day-to-day needs of these extension agents, unless the training itself became highly interactive and flexible.

After many months of experimentation, the extension agents reached the conclusion that they must perform in a variety of capacities, ranging from the most non-directive response to the client's request (the messenger boy), to diagnosis of underlying problems (the problem-solver), to the most directive kind of intervention (the advocate and leader). In short, they had to develop a repertoire of very different skills and to learn when to use them.[15]

Combining the responsibilities of an information specialist and a process helper, rather than following the bureaucratic inclination to assign these tasks to distinct individuals, is especially important. In two of the states, local "district representatives" were trained in areas not served by the extension agents to perform the information-referral activities only. In brief, they helped clients to fill out a request form, routed the forms to the state agency, and followed up initial request by ordering fuller or more specific information. Since they did not stimulate requests, their clients were self-starters. Thus, one would expect these clients to be

strongly inclined to put the information into practice. But our data on satisfaction and implementation reveal that the local information specialists were far less effective than were the extension agents, who were often obliged to persuade their clients to try the service. Clearly, a mere information officer, no matter how appealing from a bureaucratic perspective, is not sufficient. But neither is a mere problem-solver or process helper. The responsibility of conveying information is necessary for the performance of other, more active roles because it legitimizes the agent in the eyes of local educators. In essence, it helps the agent to gain credibility and entree to the local school by eliminating the image of an advocate or a substantive expert who is somehow superior to school personnel.

The mere provision of information is not perceived as a status-threat. It does not preempt the status rewards that accrue from local self-help. Once an extension agent gained personal acceptance and demonstrated a grasp of the materials delivered to the client, the agent became attractive to school personnel as a collaborator in change. In contrast, persons who present themselves as "problem-solvers" or "consultants" are often suspect from the outset. Even if they acquire external resources, they remain under suspicion of nosiness, advocacy, or remoteness from the real problem. The conveyor role, then, should be the primary role of extension agents when establishing their identity. This requirement reminds us once again of the importance of integrating substance with problem-solving activities in all state and federally funded programs.

One final consideration remains. Earlier I speculated that change agents who become part of a local structure run the risk of cooptation, which may take the form of participating in innovative activities that are mainly symbolic oriented to personal, political, or bureaucratic goals. While I cannot give definitive evidence of the extension agent's superiority in this respect, it seems reasonable to assume that greater objectivity and independence accrue to a role whose organizational base is outside the school or district. Thus, an objective, cosmopolitan orientation is brought to bear on local definitions of need. For example, in one district covered by an extension agent, it was decided to set up "social adjustment classes" for students who would ordinarily be suspended for misconduct. These so-called classes were clearly punitive in intent, with the additional purpose of appeasing the local community by preventing adolescents with behavioral problems from roaming the streets during school hours. The extension agent was able to transform these classes into rehabilitation centers by tactfully bringing current information and ressearch to the attention of the faculty and administration. In the case of another agent, the elementary faculty had rallied behind a relatively new

reading program, which had community support, as a symbol of their resistance to a new, innovative principal. The agent delivered information on the program that clearly indicated that it was ineffective, and the program was dropped, giving the principal leverage for future change in more productive directions. In both of these cases, the external orientation of the agents made it possible for them to remain aloof from local pressures, and to provide objective information that channeled the defensive energies of the staff toward genuine improvement.

Another advantage of outsiders is that they are able to bring together resources and people from the different schools and districts under their jurisdiction, by virtue of their broad familiarity with local programs and their access to a number of settings. The following summary of the work of one agent is illustrative (Sieber et al., 1972).

"One of the strong points of this agent is her ability to bring educators from different schools to work together on innovative projects. Rather than treating the two request for help with math programs separately, she chose to bring together all of the schools in the district on behalf of these efforts. She disseminated material on innovative efforts in one district to schools in other districts. The interest in Middle schools in particular has been spreading throughout the target area as a whole. She brought a group of educators from another district in her area to see the Middle School in Jordan County and to discuss the problems and benefits of the arrangement with the principal . . . By encouraging communication between schools, while at the same time supplying them with information from a national data base, the agent has sought to overcome a tendency toward insularity in rural educational circles." (p.853)

In similar fashion, another agent developed a strategy of school visitations for teachers interested in social studies, science, and outdoor education:

"During the spring semester the agent drove teachers to Spring Junior High School to visit their innovative service program. The enthusiasm of the two science teachers over the Spring Junior High School program prompted them to take a class in educational innovations given at a local university. During this class they developed individualized units to be utilized in their science classes. In all, about a dozen teachers from the nine districts in the area visited different schools to observe programs in science and social studies . . .The field agent also took teachers to visit the Smith High School Outdoor Education Program and the Brewster Summer Outdoor Workshop."(p.869)

Clearly, the underlying lesson derived from this pilot program is the importance of clinical adaptability. And because of the

need for adaptability the agent cannot afford to delegate responsibilities or to specialize in any one type of clientele, problem, or area. (A possible exception is specialization according to primary and secondary levels.) Further, the agent must be able to shift rapidly from one activity or change strategy to another, to be familiar with all stages of a change process, and to get in touch with educators elsewhere on very short notice. Only non-specialized full-time individuals, not teams or committees representing different perspectives and having other role obligations, possess the freedom of action to do these things. Further, extension agents must not become dependent on the decision-making of permanently constituted groups, although they may help establish such groups locally, advise them, and offer resources from a retrieval center. And they should not be either completely internal or completely external to a particular district, but located in an agency intermediate between state and local education agences. Only by occupying a boundary-spanning role, as sociologists call it, are they able to integrate people, ideas, and agencies. And only by being independent of local administrative structures do they have the freedom of action required for responsiveness to individual educators.

It is noteworthy that an evaluation of another extension agent program by Herlig (1975) pointed to the same conclusions. As Herlig asserted on the basis of survey feedback from clients who were exposed to several types of information programs:

"The field based extension agent who can solicit and entertain requests for information from administrators, teachers, and other school personnel should be viewed as a critical operative in the development of a viable information dissemination system. Data which permitted comparison of extension agent as opposed to local linker effectiveness pointed to a wide performance differential in favor of the former. In the context of this Project, the role of the extension agent could not be challenged as the the most proficient purveyor of project services to client district."(p.38)

Elsewhere in Herlig's report, a field agent noted that "working as a generalist seems to be more effective than working as a specialist," and that "the field agent is more effective working on a full-time basis."

Another component of our program that contributed to its success was, of course, the information retrieval system. While this component has not been discussed here, it should be borne in mind that extension agents must ultimately depend upon the acquisition of an array of relevant resources, including how-to-do-it materials, state-of-the-art reviews, conceptual papers, and kits of promising practices. This is the approprate

level for organizational routine.[16] When possible, alternative solutions or materials should be made available to agents for delivery to clients; and agents should have the opportunity to screen, interpret, and highlight relevant portions of documents in order to ease the burden on busy school personnel.

Conclusion

There is mounting evidence that the best way to serve the needs both of educators and of enlighted change is to adopt a highly flexible, interpersonal approach with a bare minimum of role preconceptions and organizational props. Models of planned change that are based on specification of role performance, specialization by subject matter or type of clientele, permanently operating structures with division of labor, priority-setting, coordinative mechanisms, and so forth, do not achieve the avowed goal of taking everyone's needs and circumstances into account and of permitting personal decision-making. (This does not mean that some monitoring of extension agents is not necessary, but this should be done on a collegial rather than a bureaucratic basis.) Moreover, the implementation of such models might be not only irrelevant but detrimental. Concentrating on a few issues deemed legitimate by organizational leaders at local, state, or national levels diverts attention from the whole spectrum of individual and organizational needs.

And yet, despite the demonstrated worth of free-floating, full-time generalists as extension agents, virtually every federal, state, and local program for educational innovation being promoted and installed today relies on the same routines of creating task forces, developing problem-solving teams in local districts, retaining specialists or school personnel as part-time disseminators, and a host of other conventional managerial practices. The trouble with this approach is that existing roles and structures have a number of built-in obligations, habitual practices, and traditional perspectives that are not conducive to dealing with clients in new and highly flexible ways. But no doubt these approaches appeal to our sense of administrative order. They reflect bureaucratic needs. What they do not reflect is a genuine interest in local educational assistance and in long-term cost effectiveness.

In sum, it is my opinion that only by "end running" the bureaucratic educational maze will we be able to help the local educator, and spend taxpayers' dollars wisely. It is not more coordinating, targeting, retreading, and so on, but field placement of full-time generalists who can pursue a contingency model that will produce meaningful assistance on an unprecedented scale.

Notes

[1]A glance at any listing of educational resource topics, such as the ERIC thesaurus, will give the reader some idea of the staggering range of interests that characterize the educational profession.

[2]One might also point to the fate of Teacher Corps interns who were subjected to intense local pressure to conform to traditional student teacher roles and to abandon their advocacy of specialized handling of disadvantaged students (see Corwin, 1973).

[3]This notion seems to be firmly rooted in the organizational literature of sociologists. As March and Simon (1958) asserted: "(An) organization does not search for or consider alternatives to the present course of action unless the present course is in some sense 'unsatisfactory'" (pp.173-174). Similarly, Abbott (1969) claimed that "dissatisfaction with existing procedures or arrangements will occur when there exists a perceived disparity between performance and aspirations" (p.170).

[4]Pincus (1974) reached a similar conclusion on the basis of an analysis of incentives for the adoption of innovations by administrators. He found that an appearance of innovativeness and the reduction of bureaucratic costs are primary forces.

[5]These processes might account for the negative consequences for communication sometimes found of short-term OD training (see Miles, 1976a).

[6]What might be called the "muddling through" model should not be regarded as non-rational. Its improvisatory, expedient nature entails short-run adaptation of means to ends. When action takes place in a complex environment, resources are limited, and the outcomes very unpredictable, short-run rationality might be far more reasonable and ultimately more productive than long-range planning.

[7]I do not doubt that an initial period of enthusiasm for engagement in change processes might often stimulate school personnel to accept additional burdens. Too often, however, the honeymoon is over before the marriage begins.

[8]For an analysis of the U.S. Forest Service as a dispersed organization, see Kaufman (1960).

[9]For a full, theoretical treatment of dispersed organizations and contingency models, see Louis and Sieber (1979).

[10]Several training programs for such personnel already

exist-see Banathy et al. (1973); Havelock and Havelock (1973); Jung (1970); Paisley and Coulson (1972); Watson (1967). See also Sieber, Louis, and Metzger, 1972, ch.11.

[11]For full details, see Sieber et al. (1972).

[12]An eight-page questionnaire was distributed to all clients of the service in a five-month period approximately three weeks after they had received information or assistance. Return rates from the three states were 61%, 85%, and 77%. A one-page follow-up questionnaire containing key questions raised the return rates to 72%, 93%, and 86%, respectively. Analysis of response bias on a postcard follow-up among non-respondents revealed no bias in key attitudes or background characteristics.

[13]It should be noted that the expressed needs of school personnel covered an enormous range of topics. In a single rural elementary school, requests were received on 28 different topics in a year-and-a-half period.

[14]One obvious effort of dispersion was that a great deal of disagreement between project directors and extension agents about how to perform in the field could develop without overt conflict or demands for compliance. Thus, agents were able to adjust to client needs and constraints without being restrained by managerial preconceptions (see Louis and Sieber, 1979, ch.2).

[15]For guidelines to help the agents determine which type of approach to take, see Sieber et al. (1972, App.G)

[16]For a detailed description and analysis of the retrieval system, see Sieber et al. (1972, Part III).

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Organizations as Social Inventions: Rethinking Assumptions About Change

Thomas B. Greenfield

Organizations serve as common targets for critics and reformers who see social institutions as frequently (if not inherently) opposed to human purposes and needs (Ash, 1971; Katz, 1971). Consequently, change agents with varied but intense visions for improving organizations seek to transform them in ways that will liberate rather than frustrate and alienate the human spirit (See Argyris, 1962; Bennis, 1966; Miles, 1965; Rothman, 1972.)

Two critical assumptions appear to underlie this view of organizations. One is that organizations exist apart from people, thus making it possible to modify organizations or to design new ones without changing people. The second is that the goals of an organization are independent of those held by individuals within it. If these assumptions are accepted, a line of reasoning emerges which holds that the way to improve organizations is to redesign and direct them toward humane goals. The strategy for organizational improvement thus derived demands the shaping of organizations in terms of human needs rather than organizational requirements. Although there is dispute about what to change within the organization, there is usually agreement that organizations are entities capable of improvement and that organizations and individuals have goals which would be better achieved if the organizations were smaller, less bureaucratic, "healthier," more structured, or more something, which would change their internal structure or processes.

In contrast, this paper argues that most of our current strategies for changing organizations rest upon an oversimplification that conveniently separates people and organizations.

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If we see individuals and organizations as inextricably intertwined, it may not be so easy to alter organizations without also cutting into something unexpectedly human. It is surely desirable that we have a vision of how organizations might be better; but we should also understand what we are changing when we offer new models for life in organizations. Such an understanding takes us back to some curious and usually neglected phenomena found in the way people see the world-particularly in the way we come to hold or change our views. In these times, when many social institutions are under attack for changing or for failing to change, it is appropriate to ask just what it is we change when we change an organization.

Within the general problem of what we mean by the concept "organization," I wish to raise two specific questions: "What is an organization that it can have such a thing as a goal?" Second, "How do the goals of individuals bear upon those of the organization--if, indeed, it is appropriate to speak of organizational goals?" These questions are clearly interrelated; they may be, in fact, merely different ways of asking whether an organization is something more than the sum of its parts. These are not new questions in organizational analysis, and I do not propose new answers. I do want to suggest that we seldom ask these questions or seek a compelling set of anwsers when we engage in efforts at organizational change. Such indifference cannot really be justified; adequate answers to these questions raise some serious doubts about our ability to change organizations or to design them to meet human needs.

WHAT IS AN ORGANIZATION THAT IT CAN HAVE A GOAL?

At a pragmatic level, we have no difficulty believing that organizations are real and that they have goals apart from those of specific individuals within them. Prisons, banks, schools, hospitals, political parties, and armies are organizations whose reality and whose goals the individual may deny only to his disadvantage or even at his peril. That these organizations are "real" and that they have different goals seem obvious. Theorists substantiate this common-sense view of organizations by usually dealing with organizations as objective "facts." (See, e.g. Mouzelis, 1967; Parsons, 1958.) Where there are differences among theroists, the argument usually turns on the nature of the particular "fact" observed, not upon what predisposes us to see organizations in terms of one set of facts rather than another. Most theoretical perspectives on organizations foster our view of them as powerful, goal-oriented entities that operate on people reather than through them. A look at two major conceptions of organizations-systems theory and bureaucratic theory-reinforces this conclusion.

Bureaucratic theories of organization locate reality in structure, which, as expressed through specialization and hierarchy, operates to achieve predetermined goals. In this view, organizations "planfully" solve problems, they "drive toward rationality," and they "invade" realms of action traditionally controlled by individuals (Gouldner, 1959, p.418). Thus the organization in effect strips its member of their personal motives and replaces them with those that serve the purposes of the organization. Accepting this view of the power of the organizations apart from people within them, Perrow (1970) argues that-

...people's attitudes are shaped at least as much by the organization in which they work as by their pre-existing attitudes (p.4).

And again from Perrow:

...a great deal of organizational effort is exerted to control the effects of extra-organizational influences upon personnel. Dialy, people come contaminated into the organization....Many of the irritating aspects of the organizational structure are designed to control these sources of contamination (1970, p. 52).

In contrast to the bureaucratic view of organizations, the systems perspective rejects the notion of the organization as striving to achieve goals external to itself, but retains the concept of organization as an entity apart from its members and with power over them. An open system is defined as:

... a bounded collection of interdependent parts ... maintained in a steady state in relation to each other and the environment by means of (1) standard modes of operation, and (2) feedback from the environment about the consequences of system actions (Miles, 1965, p.15).

Thus systems theorists see homeostasis and feedback as critical in organizational life, since these processes operate to give purpose to the functioning organization. In the systems view, organizations do not appear as mechanisms designed for the single-minded pursuit of goals set by external hands; rather, organizations discover goals through their capacity to respond and adapt to their environments. Therefore, a fundamental problem for organizations is the discovery of goals that will maintain the integrity of the system and ensure its survival in the environment. On this account, the "operative" goals (Perrow, 1961) of organizations, as distinct from those formally promulgated for them, are obscure and hard to identify. For this reason, systems theorists are usually not concerned with specific goals of organizations, but only with the quality of basic organizational processes-with the health of the organization.

The idea of an organization's responding like an organism to its environment and thus discovering an equilibrium or goal which enbables it to survive in its environment is a recurrent theme among systems theorists (see e.g. Etzioni, 1960; Katz & Kahn, 1966; Merton, 1957; Selznick, 1948; Thompson & McEwen, 1958). Of course there are critics of bureaucratic and systems theory who proceed from a psychological viewpoint designed to take the individual into account. However, even these critics are apt to see the organization as a thing apart from its members. Thus Argyris (1964, pp. 197-220) advocates that organization structure be redesigned to meet human needs-especially higher-level needs like self-actualization. Bennis (1968) recommends that organizations learn to change quickly so they can adapt to complex turbulent environments. According to this view, organizations that cannot learn to change, and change quickly, will suffer the penalty of any ill-adapted organism extinction. This evolution will leave us with small, quick-witted, democratic organizations, in contrast to the ponderous bureaucratic forms now expiring around us.

The point I wish to emphasize is that the views of organizations and these beliefs about what should be done to deal with their "problems" all imply a single, goal-oriented entity that is the organization; they assume this entity works (perhaps badly or dysfunctionally) to impose pattern on its members. Thus, among those who see themselves as organizational diagnosticians and doctors much effort is spent in trying to develop satisfying or effective relationships between members and the organization and between the organization and its environment.

This belief in the organization as a thing makes assessment of it relatively easy. One may ask how well the organization satisfies its members' needs, or how well it achieves its goals. Where the organization is found wanting on either count, the organization as such is revealed as needing change or improvement. Though the organizational doctors do not always agree on what to do with the diseased or ailing organization, there is no lack of prescriptions to deal with its maladies. In education, these remedies vary from those that abolish the organization to those that merely transform it in some way.

An Alternative View

And yet this notion of organizations as creations apart from people, as entities capable of having goals and responding to their environment, creates a paradox. No matter how obvious their reality, nor how theoretically convenient the conception of them as such, organization theorists-if not men of practical affairs-must deal with some puzzling questions flowing from the idea of organizations as "real" things. If organizations are

real but nonhuman, how can they have so human a thing as a goal? And how can an organization behave, respond, or adapt when these are typcially properties of organisms, not things? Though there may be many analogies between organizations and organisms, or between organizations and complex interacting physical systems, it is one thing to say these systems are similar and quite another to say they are the same. With some notable exceptions (e.g. Cyert & March, 1963; Simon, 1964), few organization theorists begin with the notion that organization goals are ideas held in the human mind rather than a property of an abstraction-the organization itself. With few exceptions (Silverman, 1970, pp. 5-6) organization theorists fail to ask how it is that individuals perceive the goals of an organization and orient their behavior toward it. In short, few organization theorists see organizations as categories for understanding the world of social action, as categories created by individuals and dependent upon human acceptance and support. Instead, much of organization theory deals with human response to organization rather than with human activity in creating organizations.

The difference is important. The common view of organization sees it as an external structure with rules, powers, and goals of its own. It is this structure with which the individual must deal. Many ciritics or organization therefore see organization as inherently alien to human purpose and wish to destory it in order to free man of its chains. Other critics merely wish to make organization compatible with human needs and desires. If we see organizations not as imposed on man but as created by him, we begin to ask some different questions about organizations. In this view, individuals not only create the organization, they are the organization. Of course, different individuals bring diverse ideas, aspirations, or needs to the organization. To see organization as created out of such diversity is to recognize organization as the social reality within which individuals interact; it is to see organization as "the everyday picture of the social world" which the individual builds and regards as merely "what everybody knows" (Silverman, 1970, p. 6).

In answer to the first question posed at the outset of this paper, we may say that organizations have goals in the same way that individuals have goals-except that, in the organization, the individual must concern himself not only with his own goals but with those of others as well. Thus the concept of organization we are dealing with here is not a single, uniformentity, but a multifaceted notion reflecting what the individual sees as his social world and what meanings and purposes the individual brings to or takes from that reality.

Bavelas (1960) baldly states the proposition basic to this notion of organization: "Human organizations are not biological

organisms; they are social inventions" (p. 498). Following this line of thinking leads to the paradox that man not only creates his social reality, he then responds to it as something other than human invention. If organizations are a kind of invented social reality, we should seek to understand them in terms of the world-taken-for-granted by individuals involved with organizations or in terms of the individual's images of himself and of the organizations of which he is part (cf. Silverman, 1970, pp. 143, 182, 228). With this frame of reference, we should not be surprised to find that organizational structure has no uniform effect upon people but depends upon the person perceiving it and his definition of social reality. From this vantage point, too, we would probably regard it as useless to try to deal with a single organizational structure-whether our aim was to abolish this structure, to change it, or to improve it. And with this view of organization, we would probably also give up attempts to judge its effectiveness in terms of single set of goals-whether those were external goals toward which bureaucracies are supposed to strive or goals which organzations are thought to achieve through dynamic equilibrium with their environments.

CAN INDIVIDUAL GOALS BECOME ORGANIZATIONAL GOALS?

These considerations raise the second question posed at the beginning of this paper: Given that individuals are in some way determinants of organization, how are goals of individuals transformed into something we recognize as goals of the organization? To me the best answer to this question-though not a complete answer-is found in the decision-making tradition in organization theory (e.g., Cyert & March, 1963; Simon, 1964; Thompson, 1967), which views organization as a social reality within which individuals see rules, pressures, demands, powers, and dependencies. Organization thus becomes the perceived social reality within which individuals make decisions. The heart of this view is not a single absraction called organization, but rather varied perceptions by individuals of what they can, should, or must do in dealing with others (Silverman, 1970, p. 136). When an individual shifts his frame of reference for decision making, he shifts his organization. These ideas require us to abandon notions of organizations as striving to achieve externally set targets or achieving a simple equilibrium with the environment. Rather, the view suggested is a continuous process of bargaining and coalition among individuals. Some coalitions turn out to be viable, at least in the short run, thus giving members of those coalitions the power to allocate resources or to divide the labor in ways that seem good to them. In this view, the goals of the organization are the current preoccupations and intentions of the dominant organizational coalition. This conception of organizational goals does not require us to regard them as some ultimate point toward which the entire organization moves, nor as a

steady state characterizing organization-environment relationships. Instead, organizational goals may be as fleeting a the membership of the dominant coalition; as changeable as members' views of what is practical, desirable, or essential. Above all, this view of organizational goals frees us from the need to see such goals as uniform and stable throughout the organization: they are as varied and no more table or rational than the individual.

What the proponents of this decision-making tradition in organization theory do not make clear is why and how others accept a dominant coalition's definition of a situation. Though conceiving a balance between organizational inducements and member contributions may help to resolve this problem (March & Simon, 1958, pp. 84-88), the basic difficulty remains. We must explain the common but extraordinary situation in which we find members of organizations "actually performing tasks demanding a high degree of skill and involvement that are utterly remote from their personal interest and the rest of their cognitive field" (Burns, 1967, p. 133). To understand what is going on in organizations we must explain behavior in terms meaningful to the actors involved. Instead of prescribing what kinds of behavior would make a healthy organization if only people engaged in them, it might be better to find out first the motivation that do in fact act as springs for individual action.

This line of thinking takes us back to an important but often neglected idea of the work of Max Weber. Weber cast his analysis of history and organization in terms of Verstehen, a concept[2] requiring that the actions of men be understood in terms meaningful to them, not in terms of values and meanings held, however dearly, by outside observers. Thus Weber (1947, p. 113) classified organizations according to the "validity" and "legitimate order" that people accord them. Elaborating on this notion, Simon (1957a, p. 126; 1957b, pp. 108-110) argues that authority rests not with "persons of authority" but in relationships built upon people's beliefs about how they should behave toward one another. In coming to believe what one ought to do, one also shapes a role for oneself and ultimately creates an organization in which that role may be performed.

Therefore, the kinds of organization we live in derive not from their structure but from attitudes and experiences we bring to organizations from the wider society in which we live. Organizational change, then, requires more than structural change; it requires changes in the meanings and purposes that individuals learn within their society.

This notion of organizations as dependent upon meanings and purposes which individuals bring to organizations from the wider society does not require that all individuals share the same meanings and purposes. On the contrary, the views I am

outlining here should make us seek to discover the varying meanings and objectives that individuals bring to the organizations of which they are a part. We should look more carefully, too, for differences in objectives between different kinds of people in organizations and begin to relate these to differences in power or access to resources.

In particular, it appears that we should look closely at this matter in people-processing organizations, such as schools, hospitals, and prisons. Many organizations of this kind face some kind of crisis today. In the past their clients were usually regarded not as members of the organization, but as the raw materials upon which the structure and technology of the organization worked. That view turned out to be tenable only so long as clients accepted that definition themselves. What we are apparently witnessing today is a shift in belief-a shift in goal-among those members of organizations whom we usually call clients. Increasingly frequent prison riots may reflect the view, growing among both prisoners and wardens alike, that prisons are not places in which people should be put (Rothman, 1972). Where prisoners used to strive to escape from prison, they are now likely to seek to destroy it. Similarly, new views about what school ought to be are growing-views that are not usually found in official statements of educational objectives or in functional analysis of school-environment relationships. Bereiter (1972) shows how a set of new social "facts" can alter the whole basis of school as an institution, even though these "facts" may be perceived and acted upon as goals by only a small minority:

> What seems to be happening is that the perspective of the outer world is penetrating the school. The traditional school cannot survive such an invasion, for if goings on in school came to be judged by the same standards as goings on outside, they will be seen as ridiculous and the structure will collapse. You cannot have a room full of ten-year-old Paul Goodmans and Edgar Z. Friedenbergs and hope to run a traditional school, especially if the teacher holds the same viewpoint (p. 399).

Where do these ideas have the concept of "organization"? I began this paper by questioning the common notion of organization as a structure with functions and goals apart from those of the indivudals who inhabit it. But what is an organization if it is not something separate from individuals? At the present time, I find myself unable to answer this question satisfactorily. Burns (1967, p. 132) provides us with a beginning point when he speaks of organization as a "transducer" connecting a set of demands with a set of action consequences. Now "transducer" is a term from physics designating a device which receives power in one form and transforms it into another (e.g., a telephone transforms electric power into acoustic

power). In organizations, the transforming mechanism lies within individuals. It is found in individuals striving to change their demands or beliefs into definitions of reality that others must regard as valid and accept as limitations on their actions. Although this concept of organization permits us to speak of the dominating demands and beliefs of some individuals, and allows us to explore how those with dominating views use the advantage of their position, we need not think of these dominating views as "necessary," "efficient," "satisfying," or even "functional," but merely as an invented social reality, which holds for a time and is then vulnerable to redefinition through changing demands and beliefs among people. Our conceptions of organizations must be as complex as the reality we try to understand.

DESIGNING AND CHANGING ORGANIZATIONS: SOME SPECULATIONS AND IMPLICATIONS

In short I have argued that we lack an adequate concept of organization, though when it comes to designing or changing organizations, we often behave as though we have one. Although organizations do not possess structures independent of people, or goals apart from human intentions, change agents strive to reshape their structures, reformulate their goals, or achieve a better integration of the individual with the structure. In opposition to these views, I have put forward an alternate but less commonly held view: that organizations are ideas held in the human mind sets of beliefs-not always compatible-that people hold about the ways they should relate to one another. Within these relationships, people act to realize values, to attain goals important to them. This alternate view holds that there is no overriding purpose which an organization serves and no single structure through which it operates. Rather, organizations incorporate a multiplicity of ends, and uncertain means for achieving them. What the are the implications of this view for organizational analysis and change strategies based upon such an analysis? The discussion will focus primarily on schools as a particlar type of organization.

Received Notions of Organization Theory

What seems extraordinary in much contemporary organizational analysis is that theories which see organizations as "things" always seem to prevail over theories which see organizations as extensions of individuals. Traditions dealing with organizations as mechanisms or organisms usually find favor over those which, reflecting Weberian views, see organizations as complex patterns of choice made by individuals in pursuit of ends that are meaningful to them.

Facing such complexity, we should desist in our efforts to discover the "most effective" organizational structure or the one "best adapted to the environment" and put more effort into understanding the specific meanings, purposes, and problems of specific individuals in specific organizations. Though it may move against efforts to develop a "science" of organizations, wherein all propositions have universal force and validity, this seemingly anti-organizational view of organizations asks simply for a human perspective in understanding and assessing organizations.

Thompson (1967, pp. 84-87) has suggeted that the assessment of organizations depends upon our beliefs about what an organization should do and upon our knowledge of means to achieve those ends. Where there is dispute about ends, means, and outcomes-as appears to be the case with school-we should have little faith in organizational doctors who are ready to diagnose organizational ailments and offer prescriptions for prompt recovery. Surely, as a minimum, we should be more careful than we usually are about making prescriptions for organizational change that assume similar dynamics in the operation of most, if not all, organizations. Prescriptive organization theory (e.g., Blake & Mouton, 1968; Likert, 1961) is often based almost exclusively upon study of economic organizations; one seldom gets the feeling that prescriptions for educational change are based upon theories and conceptions of schools. Organizational theorists (e.g., Pugh, Hickson, & Hinings, 1969) seem all too ready to assume that concepts like bureaucracy, participation, supervision, technology, workflow, and a host of others have the same meaning in organizations of all kinds, regardless of the indivudals involved, the goals they pursue, and the cultural environment from which they come.

The propositions I have advanced above question the notion of a single theory of organization and of a single organizational change strategy appropriate to it. Yet few strategies for educational change try to give us a view of what this thing called "organization" is that it can be shaped and moulded and made "better." We seldom get the impression from reading change literture that "organization" may vary, depending on where we find them and who is in them. It is perhaps significant that one must look to European scholars like Mayntz (1964) for trenchant criticisms of the assumption that organizations belong to a single species and are subject to common laws:

> The major critical argument which follows is that propositions which hold for such diverse phenomena as an army, a trade union, and a university...must necessarily be either trivial or so abstract as to tell hardly anything of interest about concrete reality....After all, the distinct character of an organization is certainly determined, among

> other things, by the nature, interersts, and values of those who are instrumental in maintaining it (pp. 113-114).

This argument suggests that organization theorists have been so busy defining the forest that they have failed to notice differences among the trees-and worse-have ignored relevant data that are not trees at all. It suggests, too, that an academic industry which trains administrators by disclosing to them the social-scientific secrets of how organizations work (Culbertson et al., 1973) or how policy should be made (Charlesworth, 1972) indulges at best in a premature hope and at worst in a delusion.

Organizations As They Are

If organization theorists and change agents took seriously the views propounded here, they would put more emphasis upon open-ended inquiry into organizations and less upon strategies for improving them. My suggestion is that present organization theory tells us too little about organizations as they really are and too much about the biases of the theories and change agents. Thus organization theorist have spent much time saying that organizations ought to be "healthy" or that individuals ought to find fulfillment within them. There is virtually no end to the statements that organizations ought to be adapted to their environments, nor to presciptions for improving that adaptation.

Instead of trying to build or verify more grand theory about organizations and intead of trying to remodel organizations, it might be better to find out how organizations are able to survive in their supposedly crippled, ill-adapted, or non-satisfying forms. Such an investigation will take us into a study of human purpose and interaction within organization; it will take us into the study of individual reaction to role structure rather than into explanations of why certain role structures are "necessary." In looking at organizations more squarely as they are, we will have to start looking at schools as schools and not as some presumed subspecies of an ideal type called organization (Bidwell, 1965; Miles, 1967; Sieber, 1968). For all their acknowledged importance, it is extraordinary how little we know about schools as organizations in their own right. Instead, when we theorize about schools as organizations, we are likely to borrow ideas and models from other areas of organizational study. When we come to analyze or improve them, we are apt to reach for concepts developed to describe other kinds of organizations. Thus much of our effort to understand schools as organizations is cast in terms of bureaucratic theory, theory of general social structure, or industrial phsychology and sociology. Similarly, revisionist historians who use bureaucracy as a Schmpfwort for describing

schools fail to distinguish the hopes and expectations that people of one time and place may have held for schools from those we now hold for them. (See, e.g., Katz, 1971.) Instead they use the values of the present to judge the actions of the past.

Understanding schools in their own terms will require more direct and active attention to undertanding school experience for its own sake. For this purpose, a comparative historical perspective is essential (cf. Mayntz, 1964; Burns, 1967). We must begin to understand more thoroughly and deeply the varieties of experience people have within the organizations we call schools, and we must not limit the experiences studied to those of particular groups. The varied and often conflicting views of teachers and administrators are important, but we also need to know about pupils, parents, and school board members and to know them within a perspective which relates these various groups to one another. We need to compare the meanings, experiences, and understandings found in particular schools in one time and place with those found in other times and places. It is only through such comparison that we may come to understand the frame of reference, the world-taken-for-granted, that defines "school". In abandoning received theories about organizations in general and about schools in particular, we will have to look to a new kind of research--one that builds theory from the data rather than one that selects data to confirm theories developed apart from the data. This requirement directs us to theory built from observations in specific organizations; it directs us as well to understanding the actions, purposes and experiences of organizational members in terms that make sense to them (cf. Glaser & Strauss, 1967; Center for New Schools, 1972).

Excessive Concern with Structure and Process

In recent years, change agents and practitioners have focused strongly on the internal structures and processes of organizations, a concern flowing from the belief that organizations have goals, from the belief that if we can just get the structure or process "right," organizations will be more effective in achieving goals or better adapted to their environments. A few year ago, educational administrators were much concerned with the "organizational climate" of schools, and we came to believe that organizations have climates in about the same way that people have personalities (Halpin & Croft, 1963). The "discovery" (or belief) that organizations have climates led, of course, to judgments about which climates are good and which are bad. Since measuring a school climate required only the administration of a few questionnaires and some whiz-bang factor analyses, it was easy enough to diagnose personality

ailments in school organization and to suggest that organizations with bad personalities should improve them. This kind of analysis is like earlier studies of leader behavior or later ones concerned with organizational health: all attempt to identify a single, critical variable within the organization that can be manipulated to improve it. Though empirical researches find that organizational structure bears only a tenuous and inconsistent relationship to human experience, researchers (e.g. Hoy, 1972) continue to hope that better measurement and methodology will yet substantiate the Marxian thesis that an organization determines the experience of persons within it. What these analyses fail to tell us is how leadership, climate, or health arise, and whether these notions identify concerns of persons involved in the organization. Lacking this understanding, there is really very little we can do to "improve" leadership, climate, or health in an organization.

Radical critics of education take the concern for structure and process one step further than more conventional organizational analysts. Where the conventional analyst is likely to strive to get the "right" structure or process in an organization, the radical critic is apt to believe that there is something inherently wrong with organizational structure and that it exerts a baneful effect upon the human personality. The belief dies hard that organizational structure is "real" and independent of human meaning and purpose.

We begin to get a glimmer of what we are dealing with in organizational structure and human response to it when we look at the experiences of some of the radical critics of education in their efforts to build better schools. What have their reforms wrought? The evidence is incomplete but provocative: The freedom of the alternative school turns into patterned, predictable romanticism where everybody "does his own thing" in sadly similar ways, but where it is no more probable that children will learn to read and do arithmetic than it is in conventional school (Kozol, 1972a, b). Decentralization of education leaves pressing social problems unsolved and gives expression to some human values abhorrent to radical critics (Katz, 1971, p. 136). "Organic growth" in an organization and widespread participation in decision making lead not to harmony and truth but to conflict and stress:

> ....The experience of Metro and other alternative schools suggests that what emerges "organically" in an alternative school is not a new person or community, but rather those deeply ingrained patterns of thought and action of the traditional society and the patterns of functioning that govern the operation of any complex organization (Center for New Schools, 1972, p. 336).

It is exactly those "deeply ingrained patterns of thought and action" which we must begin to understand if we are to understand organization and to change them. Shifting the external trappings of organization, which we may call organization structure if we wish, turns out to be easier than altering the deeper meanings and purposes which people express through organization. Usually we are aware of these meanings and purposes only when we try to change them in ourselves or others. Thus some radical critics of education have become painfully aware of differences between their own and others' values when they removed the conventional structures of organization. The result was not to abolish the problems as inherent in structure but to discover them in a new form. To explain this outcome, we are forced to see problems of organizational structure as inherent not in "structure" itself but in the human meanings and purposes which support that structure. Thus it appears that we cannot solve organizational problems by either abolishing or improving structure alone; we must also look at their human foundations.

Rationality in Organizational Design

There is a kind of cultural imperialism or arrogance that goes with prescribing for organizations unless we know how individuals interpret and respond to the organizational world in which they live. In the city in which I live, educational radicals recently won a hard fight to permit parents in the lower socioeconomic community the right to participate in the selection of the school principal. The parents duly met and decided by a large majority that they did not want to participate in such a selection. In one of my own projects, we persuaded a rural school system to consult the community about its objectives for policy and program. To our surprise, the only large group interested in such matters were the professional educators in the county. What interested the public, on the other hand, were not general aims and policy, but the details of school operation--the very things which educators in the county regarded as matters for professional, not public, decision. The public was interested, but in the "wrong" things. A standard answer to such problems holds that the public can learn to deal with the larger issues and become interested in the "right" things. It would be easier, however, to recognize that such events were anomalous only from the perspective of certain theories about how people ought to behave in organizations. In place of such theories, we need to know more about how people are in fact involved with organizations and whose views within them command decision-making powers.

In the conventional way of looking at organizations, we resolutely split ends and means; we insist on thinking of organizations as means for the attainment of specified goals. This

view fosters rational analysis of organization: the goals provide criteria for assessing specific policies and practices and the organization itself. Such an approach lies at the base of programmed budgeting and management by objectives.

Unfortunately, these schemes assume a more rational world than actually exists, and so frequently fail. At least, they assume a different kind of rationality than usually prevails in the organizational world. In education, for example, we seem to think we need formal goals to define what goes on in schools. The assumption is that present activity is best understood not as an end in itself but as a means to an end, a means called into existence by some ultimate goal. Thus, to return to an earlier example, the interest of rural parents in school practices rather than educational aims comes as a surprise to professional educators and their university-based consultants.

But do ultimate goals actually energize the action of people involved with schools? If we follow Weber's action analysis3 we would first seek to understand schools in terms of the subjective rationality of those involved with them before we try to transform them. Perhaps we might begin to realize, as Weber did, that many actions in organizations are best seen not as means toward some ultimate end but rather as ends in themselves. I am sure there are many people involved with schools for whom certain educational end products are important goals. I am also fairly sure there are many others for whom process is more important than product. There are those among us who simply believe in "open schools," in "strict discipline," or in a host of other qualities they wish schools to have. And people are seldom willing to compromise or negotiate on these beliefs, since these beliefs do not represent means toward ends but ends in themselves. Thus for some of us participation, openness, authenticity, and trust are good things; others may value knowledge, achievement, competition, and "high standards." Achievement of some of these goals may be assessed "objectively" by external evaluators, others only "subjectively" by those involved. My point is only that we need to know more about the objectives of people in schools, and we need to discover how they change and whose goals hold the day when conflict and disagreement arise about what should be done, how, when, where, and to whom. Answers to these questions may not only give us a better notion of what goes on within schools, they may also make us more cautious in assessing them, and less willing to prescribe single solutions for improving them.

Technology, Goals, and Effectiveness

The notion of effectiveness in organizations implies accepted goals and reliable means for achieving them. Conceiving technology as "reliable means for achieving goals" (Thompson, 1967,

p. 14), conventional theory sees organizations as striving to increase the reliability of technology or to reduce the cost of its application. This notion of organizational effectivensss requires revision if we no longer assume a simple set of organization goals, nor rely on the notion of an abstract entity--the organization--which possesses them. The view of organizations as reflections of varied human purposes makes it difficult if not impossible to apply simple criteria for measurement of organizational effectiveness. The basic difficulty is that we cannot speak--as does so much of applied organization theory--about increasing organizational effectiveness unless we achieve two clear but often neglected tasks. One is to map the versions of reality which people in school see around themselves. The second is to discover stresses and disjunctures that threaten these definitions of reality. Implied in these tasks is a third one: developing the commitment of people to new social goals and the means they consider effective for achieving them.[4] It is my contention that we might better carry out this third task--the task of building an organization--if we completed the other two first, since we would then have a clearer picture of the existing organizational world and forces within it. Whether such knowledge permits us to speak of "designing" organizations is still an open question, since we so poorly comprehend what is involved in that task. What seems clear is that we should view with scepticism any presumed rules for designing organizations and any presumed universal models for the good school until we know more about what people want from schools and how they believe they can attain it.

We must also overcome our proclivity for dealing with educational aspirations exclusively in terms of end-point goals, which we presume motivate currrent activities but are themselves seldom attained in the here-and-now. The question of what motivates men in organizations to action is, of course, an empirical one, though more organizational analysts "postulate" motivators than explore them through open-ended investigation.[5] I wish only to point out here that more goals than we usually recognize in organizational life may fall in the category "thing it is right to do" rather than in the category "ends that are to be accomplished." The first kind of goal is oriented to the present; the second, to the future. I suggest that many people are present-oriented, rather than as future-oriented as efficiency-minded organization theory requires them to be.

Thus a problem im making organizations more "effective" may be that many people do not hold goals for them in the sense of ends that the organization is to accomplish, but merely hold a set of beliefs about what it is right to do in an organization. The person who holds that a given percentage of the school budget should be devoted to research is expressing a belief about what it is right to do in the organization rather

than a preference for an end the organization should accomplish. Such a person is satisfied--although perhaps temporarily--by the allocation of money to research, not by the product of research. It is my suspicion that many goals in education are of this type; they reflect our beliefs about the quality of experience we want in schools, the way resources are to be distributed, or the ways people should behave toward one another. For these kinds of goals, technology is not necessary: people in organizations are either able to express their beliefs in behavior or they are not able to do so.

Other goals in education represent ends to be accomplished in the future through the direction and coordination of activities in the present. Many of the standard goals of education are of this type: they describe skills to be acquired or knowledge to be attained. For these kinds of goals, technology is essential--it is an instrument for the accomplishment of the goals.

These two kinds of goals are often interwoven. For example, it is a widely accepted goal that children learn to read in school; indeed, even children may hold this goal. Such a goal describes an end-point to be attained and therefore calls into play the question of what technology is effective in teaching children to read. Inevitably, however, in trying to apply technology in pursuit of a reading goal, we will encounter other kinds of goals--goals that express people's beliefs about how that technology should be used; e.g., goals concerning the climate of the classroom in which the reading instruction takes place, or the content of the reading material itself. Rationality in the design of organizations seems to require that we separate decisions with respect to these two kinds of goals. We must ask what ends it is possible to accomplish with existing educational technology, and we must ask under what conditions we are to apply that technology. In making decisions about these two kinds of goals, we should not believe that people are invariably satisfied as long as end-point goals are achieved, not that intended end-point goals are achieved as long as people are satisfied by current circumstances.

SCHOOLS AS IMAGES OF CULTURE

If Bereiter (1972, pp. 390-392) is correct, schools have the technology to accomplish only a very limited set of end-point goals. We cannot, he says, educate children in the sense of building wholesome personalities and responsible citizens. What we can do is make children (and possibly their parents) happy in school; and we can train them, where we have developed the technologies, to perform certain skills involved in reading, calculation, and playing games or musical instruments. This view brings us to some puzzling questions. What are

schools and what is going on in them? Why do people go to school or require others to do so? What do they think schools do, if, as Bereiter suggests, their yield in terms of goals accomplished is so modest?

What many people seem to want from schools is that schools reflect the values that are central and meaningful in their lives. If this view is correct, school are cultural artifacts that people struggle to shape in their own image. Only in such forms do they have faith in them; only in such forms can they participate comfortably in them. For this reason, schools may be more important to people as symbols and rituals than as means for accomplishing ends. Thus linked to personal values and beliefs, schools suffer the cultural crises of our times, as alternate ideologies compete for validation through them. Though educational radicals see decadence in all modern institutions, most still keep a place for schools in the new society because they believe in schools as staging grounds for the "long march through institutions" (Ash, 1971, p. 131). To such radicals, schools appear as instruments for the transformation of cultural values.

Certainly, it is easy enough to see Kulturkampf in the controversy over the television program "Sesame Street," which Holt (1971), writing from an American perspective, could condemn as mindless technology put to the service of conventional learning. But "Sesame Street" does carry culturally rich notions of what school is and how people should act there. Such a conclusion appears most clearly from the program's reception abroad, where its meanings loom incongruously against other assumptions about school. Where Holt saw just plain school, many West Germans saw a disturbing innovation threatening their own conception of school and the place of children in it. This perceived threat was strong enough to persuade broadcasting systems in half of the federal states of West Germany to reject the program, even in its Germanized version. The program had generated culture shock among its adult viewers and moved one critic to observe: "In Germany, laughing and learning have never belonged together."6 However, the desire to separate entertainment and education strikes an American producer of the program as "a lunatic view" (Lesser, 1972, p. 244). Thus, what appears largely as an extension of a familiar technology in one context seems a new definition of social architecture in another.

These cultural examples point to the importance of faith or belief as a determiner of organizations. Achieving end-point goals may not be a primary motive for many people in schools. Evidence of goal accomplishment or lack of it may therefore be a matter of indifference to them, whereas their need to believe is paramount--their need, that is, to believe that what they do in school is right and good. If we do not believe in what we

do, can we do it? Ends and menas in schools are closely intertwined and may in fact be interchangeable as far as motivation to action is concerned.

Thus, when we ask the question, "What organizational designs will achieve specified educational goals?" we must also ask, "Who believes in these goals?" and "Who believes he knows how to act so as to achieve them?" These questions direct attention not only to goals and technologies but also to the process by which people come to believe in goals and work to achieve them. They impel us to see, as if with new eyes, how people build organizations.

CONCLUSION

Most theories of organization grossly simplify the nature of the reality with which they deal. The drive to see the organization as a single kind of entity with a life of its own apart from the perceptions and beliefs of those involved in it blinds us to its complexity and the variety of organizations people create around themselves. It leads us to believe that we must change some abstract thing call "organization" rather than socially maintained beliefs about how people should relate to one another and how they may attain desired goals. The more closely we look at organizations, the more likely we are to find expressions of diverse human meanings. The focus of investigation should not be, "What should be done to improve this organization?" but, "Whose meanings define what is right to do among people here involved with one another?" The difference in these questions is, of course, the difference between ought and is. But we do judge what is, and we do call Machiavelli immoral for separating ends and means. Yet when we come to judge our organizations, will we think of them as artifacts of human creation and remember what it is we judge? If we do, we may come to, agree with Cassius:

> The fault, dear Brutus, lies not in our stars,
> But in ourselves...

FOOTNOTES

[1]Based on a paper presented to the symposium, "Developing Effective Educational Organizations: Concept, Realities, and Strategis for Change," at the annual meeting of the American Educational Research Association, New Orleans, March 1973.

[2]See Weber (1947, p. 80); also the discussion of the concept in Eldridge (1971, pp. 28-32).

[3]For a discussion of action analysis, see Eldridge (1971, pp. 26-28) and Silverman (1970, pp. 126-146). See also Weber (1947, pp. 104-107) for his important distinction between Zweckrationalitat and Wertrationalitat.

[4]For an excellent discussion of what it means in human terms to build an organization, see the editor's introduction in Eisenstadt (1968).

[5]Cf. Argyris (1964, p.24) and Vroom (1964, p. 16). Where Argyris assumes, Vroom explores.

[6]"Kinder sind namlich auch mal dran," Der Spiegal, 5 March 1973, C7007, 57.

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